Middlebury College

ONE HUNDRED AND
FOURTH YEAR

1903-1904

Catalogue

OF

Middlebury College

MIDDLEBURY, VERMONT

One Hundred and Fourth Year

1903-1904

PUBLISHED FOR THE COLLEGE

1903

IN this place the intellectual life of fifteen hundred graduates has been formed. Upon this College the eminent achievements of many of them have reflected charm and luster. They were once here. They went out to large and earnest service in all the world. Most of them are not, and yet they live and will ever live, here and in the many fields of their active life-work.

President Samuel W. Boardman, D. D.,
Anniversary Address,
July 1, 1900.

HISTORICAL

THE charter of Middlebury College bears the date of November 1, 1800. The educational impulse of which this charter was an outgrowth was felt in the very infancy of the commonwealth. As Vermont was settled by emigrants from the older New England States, especially Connecticut and Massachusetts, it is natural that her civil, religious, and educational institutions should, in many ways, have been duplicates of theirs. The settlers brought with them a strong belief in the church, the schoolhouse, and the college as essential elements of healthy, permanent growth. As soon as a village became populous, a grammar school or an academy was projected. The political situation, however, was for many years extremely unfavorable for educational development. The controversies in which the inhabitants were so long involved for autonomy and the Revolutionary war both bade fair to annihilate Vermont as an independent State and turned all thoughts toward preservation rather than toward culture. It is, then, very creditable that before the close of 1800 twelve grammar schools had been established.

Among the latter was the Addison County Grammar School, located at Middlebury. It had been given its charter in 1797, and its prospects were exceptionally good. The act of incorporation had required $1,000 for building purposes, but more than $4,000 had been raised, of which the inhabitants of Middlebury were the principal donors.

The plan for better education assumed larger growth. In 1798, while the building was being erected, Dr. Timothy Dwight, president of Yale College, visited Middlebury and encouraged the project of establishing a college there. "The local situation, the sober and religious character of the inhabitants, their manners and various other circum-

stances" rendered the village, in his judgment, a very desirable center for such an institution. The people needed little urging. Indeed they had been for some time roused to a desire for greater educational facilities. Much inconvenience had already resulted in consequence of the fact that young men must leave the State to obtain a college education. It is related that the father of Jeremiah Evarts, when on his way to New Haven to place his son in Yale, visited friends in Middlebury and expressed his regret at being forced to send his son so far because there was no college in Vermont.

Everything conspired to make the plan feasible. The building provided for the Grammar School was amply large for both school and college purposes. The founders of the school had "procured books, appointed an instructor, and collected a number of students." Jeremiah Atwater, from the younger members of the Yale faculty, had been recommended to the principalship of the Grammar School by Dr. Dwight with a view to the presidency when a college charter should be secured.

Only the necessary action of the legislature was now lacking. Two causes, however, operated to delay the granting of the desired charter: the direct efforts of the opponents of such incorporation, and, to a less extent, the political agitations of the time, which appear to have been of absorbing interest to the successive legislatures. That of 1800, however, was more deeply concerned in the advancement of the interests of the State through the encouragement of education and literature, and the efforts of those who had been so repeatedly advocating a Middlebury charter were in that year rewarded with success. The following summary from the journals of the general assembly of the State of Vermont will show in detail the legislative action:

Wednesday, October 31, 1798: A petition of Gamaliel Painter, and others, trustees of the Addison County Grammar School, stating that the petitioners and others, inhabitants of Middlebury, induced by an ardent desire to promote and encourage the education of youth by establishing and carrying into immediate operation a college or university within the State, have erected large and convenient buildings suited to the purposes of a college, and praying the legislature to establish a college in Middlebury and to grant a charter of incorporation to such trustees as shall be appointed, vesting in such trustees such rights and privileges as are enjoyed and exercised by such bodies—was referred to a committee consisting of one member from each county, to be nominated by the clerk of the house. Referred, Monday, November 5, 1798, to the next session of the legislature.

Saturday, October 12, 1799: Petition received from last session of the legislature referred to a committee to join a committee from the council, and on Monday, November 4, 1799, referred again to the next session of the legislature.

Saturday, October 11, 1800 (two days after the opening of the session at Middlebury): Petition referred from the last session of the general assembly referred to a committee to join with one appointed on the part of the council.

Tuesday, October 28, 1800: Committee reported a bill entitled "An act incorporating and establishing a college at Middlebury, in the county of Addison;" the incorporation being declared expedient by the house in committee of the whole, Wednesday, October 29, 1800.

Friday, October 31, 1800: Bill read a second time and ordered engrossed and sent to the governor and council for revision and concurrence or proposal of amendment; yeas 117, nays 51. The governor and council concurred, without amendment, in a message to the house, Saturday, November 1, 1800.

The first meeting of the corporation was held November 4, 1800, when Joel Doolittle, of the Class of 1799, Yale, was appointed tutor, and Seth Storrs, secretary. President Atwater and Tutor Doolittle thus constituted the entire faculty. On the following day, November 5, seven students were admitted to the college, one of whom graduated in

1802. The next class consisted of three members, the third of twelve, the fourth of sixteen, and in 1808 twenty-three men received degrees.

For ten years all of the work of the college was done in a large wooden building, erected on a small plot belonging to the Grammar School. In 1810 Col. Seth Storrs, one of the trustees, gave to the corporation thirty acres of land "beautifully situated in an elevated part of the village," an area which now comprises part of the college campus. The institution was still totally deficient in funds. Private benefactions, however, enabled the young college to weather its financial storms. For a number of years the tutors were wholly supported by the open-handed contributions of the people of Middlebury, and salaries were from time to time increased by amounts subscribed and guaranteed by them. The generous loyalty of the citizens toward the institution seemed to be appreciated by the students. "There was a readiness to engage and to persevere in literary labor that compensated to some degree for the deficiencies in the means of instruction. The privileges were not numerous and, as an offset to this, they were not neglected. Many of the students were in moderate circumstances and of mature age, and hence there was an economy in their expenses and a sobriety in their manners that were favorable to the reputation of the College."

In 1809 President Atwater accepted the presidency of Dickinson College and was succeeded by Rev. Henry Davis, a graduate of Yale in the Class of 1796, who was, at the time of his election, Professor of Greek at Union College. The number of students slowly increased and Painter Hall was built in 1815 on the land given by Col. Storrs, largely by funds provided by citizens of the town. Gamaliel Painter, after whom the building was named, and who had been one of the most generous of patrons,

subsequently left all of his property to the college. The legislature, on the appeal of the corporation for aid, passed a vote highly complimenting the new college on its success, but afforded no assistance. A few years later five thousand acres of wild land and $14,000 came to the college from various parties, and other signs of prosperity are recorded. On the death of Dr. Dwight, of Yale, in 1817, Dr. Davis was offered the presidency of that institution but declined, though he accepted the charge of Hamilton College in the same year.

Rev. Joshua Bates, of the Class of 1800, Harvard, succeeded Dr. Davis in March, 1818, coming from a professorship at Phillips Andover Academy, and for twenty-one years toiled with great vigor and determination to advance the interests of the college. During his administration an entrance class numbering sixty-five shows how successful were his efforts to win students. For six years the college conferred the degree of M. D. upon the graduates from the Medical School at Castleton, and for four years upon those graduating from Woodstock. Funds, although in small amounts, began to be bestowed, the Chapel was built, and books and apparatus were provided.

Rev. Benjamin Labaree, of Dartmouth and Andover Theological Seminary, came to the presidency in 1840. The tide of prosperity seemed to have turned. Two of the faculty died, others were resigning, and students were scattered to other institutions, partly because of an epidemic which fell upon them. In 1847 the faculty consisted of the president and one professor, and an incubus of debt seemed to make impossible both material and scholastic advancement. With what undaunted courage that faculty of two must have faced the task before them is evidenced by the fact that within seven years from this time the vacant chairs had been filled, students had returned, and

more than $50,000 had been paid in as the beginnings of an endowment fund. Starr Hall, named in honor of its donors, Charles and Egbert Starr, was built in 1861, and when burned on Christmas day, 1864, was at once replaced by the same generous benefactors of the college. The civil war took away, as it did from all of the New England colleges, its quota of volunteers. The instance of a graduate of the Class of 1862, who on Commencement morning rode in from a neighboring recruiting camp and in uniform delivered his oration, is typical of the spirit of those exciting times.

On the resignation of President Labaree in 1866, Rev. Harvey D. Kitchel was called to be the head of the college and administered its affairs with great judgment for nine years. Extensive improvements were made in class-room facilities and the library and the cabinets were enlarged.

After an interim of a year, Dr. Calvin B. Hulbert assumed the charge in 1875. A number of contributions to the funds are recorded and important changes in the curriculum took place.

Through the years 1880 to 1885, Rev. Cyrus Hamlin filled the president's office. He came equipped with much experience, having been prominent in extending Christian education in foreign lands, notably in founding Robert College, Constantinople, from the presidency of which he resigned in 1877 to become professor of theology in Bangor Theological Seminary. He attacked the college problems with vigor and left many improvements as reminders of his faithful service. Women were first admitted to the College in 1883 during his administration.

During the present administration, extending from 1885, the average attendance of students has increased more than one hundred per cent. beyond that of the previous fifteen years, a liberal course of elective studies has been provided,

the standard of scholarship has been raised, the Starr Library and the Warner Science Hall have been erected, and gifts, including these buildings, of more than $450,000 have been bestowed. The encouraging liberality of the last few years leads to the hope that, at no far distant day, the endowment may become ample enough to meet the growing expenses of the institution.

Statistics recently compiled show that of the 1,594 graduates, 540 have been clergymen and, of the latter, 70 have chosen the missionary field. Of those who have engaged in the work of teaching, 100 have been professors in colleges and theological seminaries, and 32 have become presidents of such institutions. There are 370 lawyers, including over 50 judges of courts. The physicians number 93. Among the members of Congress have been found 15 graduates and 9 have been governors of States or Territories. Of these graduates over fifty per cent. of those living came together at the Centennial in 1900 to express most generous and loyal affection for the college at her turning of the years.

CORPORATION

EZRA BRAINERD, D.D., LL. D., *ex-officio*, *President*, - - - - - - *Middlebury.*

HON. JOHN W. STEWART, LL.D. - *Middlebury.*

RUFUS WAINWRIGHT, ESQ., A. M. - *Middlebury.*

HON. JOSEPH BATTELL, A. M. - - *Middlebury.*

PROF. BRAINERD KELLOGG, LL. D. - *Brooklyn, N. Y.*

HON. DAVID K. SIMONDS, A. B. - - *Manchester.*

REV. CHANDLER N. THOMAS, A. B. - *Bristol.*

REV. WILLIAM S. SMART, D. D. - - *Brandon.*

ERASTUS H. PHELPS, ESQ., A. M. - *Fair Haven.*

HON. JOHN A. MEAD, A. M., M. D. - - *Rutland.*

HENRY H. VAIL, ESQ., LL. D. - - *New York, N. Y.*

HON. E. B. SHERMAN, LL. D. - - - *Chicago, Ill.*

GEORGE M. WRIGHT, ESQ., A. B. - *New York, N. Y.*

REV. JAMES L. BARTON, D. D. - - *Boston, Mass.*

M. ALLEN STARR, M. D., Ph. D., LL. D. *New York, N. Y.*

JAMES M. GIFFORD, ESQ., LL. D, - *New York, N. Y.*

HON. JOHN G. McCULLOUGH, LL. D. *Bennington.*

JULIAN W. ABERNETHY, Ph. D. - - *Brooklyn, N. Y.*

JOHN A. FLETCHER, A. B. - - *Middlebury.*

JOHN A. FLETCHER, *Secretary and Treasurer.*

PRUDENTIAL COMMITTEE

PRESIDENT EZRA BRAINERD, *ex-officio.*

JOHN W. STEWART, RUFUS WAINWRIGHT,

JOHN A. FLETCHER.

FINANCE COMMITTEE

GEORGE M. WRIGHT, *Chairman.*

JOHN W. STEWART, RUFUS WAINWRIGHT,

JOHN A. MEAD, JAMES M. GIFFORD.

FACULTY AND OFFICERS

EZRA BRAINERD, D. D., LL. D., PRESIDENT,
Professor of Mental and Moral Science.

HENRY MARTYN SEELY, A. M., M. D.,
Professor Emeritus of Natural History.

*WILLIAM WELLS EATON, A. M.,
Professor of the Greek Language and Literature.

WALTER EUGENE HOWARD, LL. D.,
Jermain Professor of Political Science and Professor of History.

CHARLES BAKER WRIGHT, A. M.,
Professor of Rhetoric and English Literature.

MYRON REED SANFORD, A. M.,
Professor of the Latin Language and Literature.

WILLIAM WESLEY McGILTON, A. M.,
Professor of Chemistry.

THEODORE HENCKELS, S. B.,
Morton Professor of Modern Languages.

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* On leave of absence for the year.

ERNEST CALVIN BRYANT, S. B.,
Professor of Physics and Mathematics.

EDWARD ANGUS BURT, Ph. D.,
Burr Professor of Natural History.

WILLIAM SARGENT BURRAGE, Ph. D.,
Acting Professor of the Greek Language and Literature.

P. M. PEARSON,
Instructor in Elocution.

CHARLES B. WRIGHT, A. M.,
Librarian.

CHARLES EDWARD PRENTISS, A. M., M. D.,
Assistant Librarian.

ERNEST C. BRYANT, S. B.,
Secretary of the Faculty.

ALFRED E. HIGLEY, A. B.,
Inspector of Buildings.

TERMS OF ADMISSION

FOR the two courses offered by the College, the Classical and the Latin Scientific, the following requirements are necessary for admission to the Freshman Class :

CLASSICAL COURSE

GREEK

Xenophon's *Anabasis*, Books I–III, and 35 additional pages of Attic prose.

Homer's *Iliad*, Books I and II, 1–493, and 450 additional lines of Homer.

Greek Composition (Woodruff's, Collar and Daniell's, or Harper and Castle's *Greek Prose Composition* will indicate the amount required).

The requirement in Greek recommended by the Commission of Colleges in New England on Entrance Examinations is as follows, and may be substituted for the above by those who take the examination at the College. The Elementary and the Advanced portions may be taken together, or, if it is found desirable, in different years :

I. Elementary.

The Elementary Examination will be adapted to the proficiency of those who have studied Greek in a systematic course of five exercises a week, extending through at least *two* school years. It will consist of two parts (which, however, cannot be taken separately):

(a) The translation at sight of passages of simple Attic prose.

(b) A thorough examination of Xenophon's *Anabasis*, Book II, directed to testing the candidate's mastery of the ordinary forms, constructions, and idioms of the language ; the test to consist, in part, of writing simple Attic prose, involving the use of such words, constructions, and idioms only, as occur in the portion of Xenophon prescribed.

II. Advanced.

The Advanced Examinations will be adapted to the proficiency of those who have studied Greek in a systematic course of five exercises a week, extending through at least *three* school years. The examinations may be taken separately :

1. The translation at sight of passages of Attic prose and of Homer; with questions on ordinary forms, constructions, and idioms, and on prosody.

2. An examination consisting of translation and questions on the subject-matter of Homer's *Iliad*, Books I and II, 1–493.

3. The translation into Attic prose of a passage of connected English narrative. The passage set for translation will be based on some portion of the Greek prose works usually read in preparation for college, and will be limited to the subject-matter of those works.

LATIN

Cæsar's *Gallic War*, Books I–III, and 50 additional pages of Cæsar, Nepos, Eutropius, or other easy Latin.

Cicero's *Orations against Catiline* and the *Manilian Law*, and 12 additional pages of Cicero.

Vergil's *Æneid*, Books I–V, and 900 additional lines of Vergil or Ovid.

Latin Composition (Collar's *Practical Latin Composition*, Part I or III, or Jones's *Latin Composition*, Chap-

ters I to XXXIV, or Mather and Wheeler's will indicate the amount required.

The requirement in Latin recommended by the Commission of Colleges in New England on Entrance Examinations is as follows, and may be substituted for the above by those who take the examination at the College. The Elementary and the Advanced portions may be taken together, or, if it is found desirable, in different years:

I. ELEMENTARY.

The Elementary Examination will be adapted to the proficiency of those who have studied Latin in a systematic course of five lessons a week, extending through at least *three* school years. It will consist of two parts (which, however, cannot be taken separately):

(a) The translation at sight of simple Latin prose and verse.

(b) A thorough examination on Cicero's *Orations against Catiline* II, III, and IV, directed to testing the candidate's mastery of the ordinary forms, constructions, and idioms of the language; the test to consist, in part, of writing simple Latin prose, involving the use of such words, constructions, and idioms only, as occur in the speeches prescribed.

II. ADVANCED.

The Advanced Examinations will be adapted to the proficiency of those who have studied Latin in a systematic course of five lessons a week, extending through at least *four* school years The examinations may be taken separately:

1. The translation at sight of passages of Latin prose and verse, with questions on ordinary forms, constructions, and idioms, and on prosody.

2. An examination consisting of translation and questions on the subject-matter of Vergil's *Æneid*, Books I—V.

3. The translation into Latin prose of a passage of connected English narrative. The passage set for translation will be based

on some portion of the Latin prose works usually read in preparation for college, and will be limited to the subject-matter of those works.

Other authors will be accepted for the above if plainly equivalent.

Pupils should be carefully drilled in the Roman pronunciation of Latin, and attention should continually be called to the quantitative differences in vowel sounds. In no other way can there come the best appreciation of Vergil and, later, of the poets that follow in the college course. It is urged that there be an effort from the beginning of the study of the subject to comprehend Latin authors through the Latin order of thinking and without the medium of the English tongue. As a means to this end it is suggested that, together with the reading aloud of the text to be translated, easy questions and answers, based on the simpler constructions of the lesson of the day, have often proved an excellent method, not only of gaining familiarity with the proper pronunciation, but also of acquiring the simpler idioms and thought order of the language.

It is further urged that much attention be paid to the quality of the English in both the oral and the written translation of the student.

ENGLISH

The requirements recommended by the Commission of Colleges in New England on Admission Examinations.

Note—No candidate will be accepted in English whose work is notably deficient in point of spelling, punctuation, idiom, or division into paragraphs.

1. *Reading and Practice.*—A limited number of books will be set for reading. The candidate will be required to present evidence of a general knowledge of the subject-matter, and to

answer simple questions on the lives of the authors. The form of examination will usually be the writing of a paragraph or two on each of several topics, to be chosen by the candidate from a considerable number—perhaps ten or fifteen—set before him in the examination paper. The treatment of these topics is designed to test the candidate's power of clear and accurate expression, and will call for only a general knowledge of the substance of the books. In place of a part or the whole of this test, the candidate may present an exercise book, properly certified by his instructor, containing compositions or other written work done in connection with the reading of the books.

The books set for this part of the examination will be:

1904 and 1905.—George Eliot's *Silas Marner*; *The Sir Roger de Coverley Papers* in *The Spectator*; Goldsmith's *The Vicar of Wakefield*; Scott's *Ivanhoe*; Tennyson's *The Princess*; Shakespeare's *The Merchant of Venice* and *Julius Cæsar*; Coleridge's *The Ancient Mariner*; Carlyle's *Essay on Burns*; Lowell's *The Vision of Sir Launfal*.

2. *Study and Practice.*—This part of the examination presupposes a more careful study of each of the works named below. The examination will be upon subject-matter, form, and structure, and will also test the candidate's ability to express his knowledge with clearness and accuracy. The books set for this part of the examination will be:

1904 and 1905.—Shakespeare's *Macbeth*; Milton's *L'Allegro*, *Il Penseroso*, *Comus*, and *Lycidas*; Burke's *Speech on Conciliation with America*; Macaulay's *Essays on Addison and Milton*.

HISTORY

Greek History.—History of Greece to the death of Alexander, from any suitable text-book.

Roman History.—History of Rome through the reigns of the Antonines, from any suitable text-book.

American History.—Johnston's or McMaster's *History* will indicate the amount required.

MATHEMATICS

Algebra through quadratic equations, ratio and proportion, arithmetical and geometrical progressions, and the binomial theorem for positive integral exponents.

Plane Geometry complete. This comprises the amount given in the first five books of Wentworth's, Wells's, Phillips and Fisher's, and similar Geometries.

A thorough knowledge of the fundamental principles of arithmetic, with facility in the use of integral and fractional quantities, is indispensable for any progress in mathematics. Frequent use of the metric system, giving familiarity with the units and their derivatives, is also necessary to prepare the student for the work to be taken up.

It is assumed that no student has reached the point where he is ready to enter college without having received this necessary training in arithmetic.

It is very unfortunate for a student if too long a period is allowed to intervene between the time of ceasing the study of algebra in school and that of resuming it in college. So many of the important principles are forgotten if this period is prolonged, that the student is placed at a serious disadvantage. The study should be reviewed during the year preceding entrance to college.

It is especially desirable that the work in geometry shall be so conducted as to train the powers of close, logical reasoning, and that this study never be allowed to deteriorate into a mere memory exercise. The frequent use of original propositions is advised as an excellent method for accomplishing the purpose in view.

LATIN SCIENTIFIC COURSE

LATIN

The same requirement as in the Classical Course.

FRENCH OR GERMAN

Candidates will be examined in either French or German, as follows :

FRENCH 1.—Ability to translate simple prose at sight. For this purpose at least one hundred and fifty pages of text should be read. Such books as Ludovic Halèvy's *L'Abbé Constantin*, George Sand's *La Mare au Diable*, van Daell's *Introduction to French Authors*, are suggested.

FRENCH 2.—Proficiency in the elements of grammar. Whitney's *French Grammar*, Part I, will indicate the amount required.

GERMAN 1.—Ability to translate simple prose at sight. For this purpose at least one hundred pages of text should be read. Such books at Volkmann's *Kleine Geschichten*, Schiller's *Der Neffe als Onkel*, Bernhardt's *Noveletten Bibliothek*, Vols. I and II, are suggested.

GERMAN 2.—Proficiency in the elements of grammar. Whitney's *Brief German Grammar* will indicate the amount required.

Beginning with the year 1904–1905 candidates will be examined in either French or German as follows:

FRENCH

The examination will consist of two parts (which, however, cannot be taken separately) :

I. To test the candidate's familiarity with grammar he will be examined as to his proficiency in translating simple English sentences into French. Familiarity with grammar is here understood to include the inflection of nouns and adjectives; the conjugation of regular and of all irregular verbs; the uses of the article; the partitive constructions; the forms, positions, and uses of the personal and other pronouns, and of possessive, demonstrative, and interrogative adjectives; the commoner uses of the subjunctive.

II. The candidate will be examined as to his ability to translate ordinary French prose at sight. The passages set for translation will be suited to those who have read, from the works of at least three different authors, an aggregate of not less than four hundred duodecimo pages, not including sight translation done in the class. Not more than half the amount should be from works of fiction. The reading of French history should be commended and the reading of classic drama absolutely discouraged in preparatory schools.

Suitable texts: Grammar.—Aldrich and Foster's *Foundations of French* (Ginn & Co.); De Bordes's *Elements of French* (Scott, Foresman & Co.)

Composition.—Francois's *Introductory French Prose Composition* (American Book Co.); Marcou's *Composition Exercises* (D. C. Heath & Co.)

History.—Sicard's *Easy French History* (Scott, Foresman & Co.); Super's *Histoire de France* (Holt & Co)

Literature.—Williamson's *Easy French Stories* (Scott, Foresman & Co.); Dumas's *Monte Cristo;* About's *Le roi des montagnes;* Sand's *La Mare au Diable;* Musset's *Le merle blanc;* Martin's *La poudre aux yeux* and *Le voyage de M. Perrichon.*

GERMAN

The examination will consist of two parts (which, however, cannot be taken separately):

I. The translation into German of simple English sentences, to test the candidates' familiarity with grammar.

Grammar is understood to include the declension of articles, adjectives, pronouns, and such nouns as are readily classified;

prepositions; the conjugation of the regular and of all the irregular verbs; the uses of modal auxiliaries; prefixes and suffixes; subjunctive; word-order.

II. The translation at sight of ordinary German prose. The passages set for translation will be suited to candidates who have read not less than two hundred and fifty duodecimo pages of simple German, chiefly narrative prose; this amount includes sight reading done in class.

Suitable texts: Grammar.—Harris's *German Lessons* (D. C. Heath & Co.); Thomas's *Practical German Grammar* (Holt & Co.)

Composition.—Wesselhoeft's *German Composition* (D.C. Heath & Co.); Poll's *German Prose Composition* (Holt & Co.)

History of Literature.—Keller; *Bilder aus der deutschen Litteratur* (American Book Co.)

Literature.—Huss's *German Reader* (D. C. Heath & Co.); Heyse's *L'Arrabbiata;* Zschokke's *Der Zerbrochene Krug;* Storm's *Immensee;* Schiller's *Der Neffe als Onkel,* Wilbrandt's *Jugendliebe;* (Henry Holt & Co.) Lessing's *Minna von Barnhelm* Freytag's *Die Journalisten,* Hatfield's *German Lyrics and Ballads* (D. C. Heath & Co.)

To meet either of the above requirements, two years' work in a preparatory school will generally be necessary.

Increased pleasure and profit in the study of living languages come to those who acquire a good pronunciation. Rigorous attention should therefore be given from the start to this feature of the study and insisted upon to the end. The memorizing of short poems and the frequent repetition of easy colloquial sentences are the surest means to this very desirable attainment.

ENGLISH

The same requirement as in the Classical Course.

AMERICAN LITERATURE

Any text equivalent to that of Bates, Bronson, Abernethy, or Newcomer will be regarded as satisfactory.

HISTORY

English History.—Such a knowledge as may be secured by a thorough study of a work like Montgomery's.

American History.—Johnston's or McMaster's will indicate the amount required.

MATHEMATICS

The same requirement as in the Classical Course.

ADMISSION BY CERTIFICATE

Students from such schools as have thorough courses fully meeting the above requirements will be admitted without the entrance examination, on the certificate of their respective principals that they have satisfactorily completed the requirements for admission.

Blank certificates, printed by the College, will be sent to the proper officers of the schools upon application.

A student entering by certificate must prove by his classroom record during the first term that he is able to do the full work in any department to which he is admitted; failing in this he may be dropped from the class.

Students may be admitted to advanced standing, provided that, in addition to the requisites for admission to the Freshman class, they are found, on examination, thoroughly acquainted with all the studies that have been pursued by the class they propose to join.

Candidates for such standing should, however, be informed that in consequence of the thorough discipline and the exactness of knowledge that is required of the student, no one can hope, if admitted, to maintain a respectable standing, unless he comes with a high degree of preparation. Indeed, it is very important for the unity and completeness of a liberal education that the students enter

college at the commencement of the course. The disadvantages incurred by those who postpone an entrance to a later period are much more serious than is commonly supposed.

Every student admitted to an advanced standing (with the exception of those who come from other colleges) is required to pay a fee of $5.00; if he enters after the expiration of the fall term of the Sophomore year, this fee will be $10.00.

Candidates for admission must bring certificates of good moral character; and if from another college, of their regular dismission and good standing. When a student has been examined and admitted to college, he is required to attend the prescribed exercises, and is subject to the laws of the institution.

COURSES OF INSTRUCTION

The courses of instruction offered by the College include studies of two kinds, required and elective. Each student is required to have at least fifteen hours of recitation a week. All the studies of the Freshman year and two terms of the Sophomore year are required. In the spring term of the latter year, a choice is allowed between languages. During the Junior and Senior years, nine and six hours a week are respectively required, and the studies for the remaining hours are chosen by the student from the elective courses offered, subject to the following regulations of the Faculty:

A student may elect any study offered to a class below his own, and not already taken by him, if such choice is approved by the President and the instructor in that department.

A student may elect one extra study, which must be pursued under the same conditions as those of the regular courses, but will not be considered in determining his rank. No extra study, however, may be taken until a written request has been granted by the Faculty.

Each student is required to give notice in writing to the Secretary of the Faculty of his choice of elective studies for any term not later than the last Friday of the preceding term.

CLASSICAL COURSE

FRESHMAN YEAR

FALL TERM—TWELVE WEEKS

Greek.—*Select Orations* of Lysias. Greek composition exercises based on the Lysias. The work of this term is designed as a review of grammatical forms and of syntax. Four hours a week.

PROFESSOR BURRAGE.

Latin.—For formal translation such chapters of Livy, Books XXI and XXII, are selected as to constitute a fairly comprehensive story of the second Carthaginian war from its beginnings to the defeat at Cannae. Library readings on the characteristics of Roman and Carthaginian, the nature of the struggle, and the importance of the results of the war are assigned each member of the class. Written tests in sight reading are from Livy and other historians. During the term there are required about twenty-five prose exercises based upon the text translated. These exercises include a thorough review of the more elementary principles of Latin writing, much practice in the handling of verb forms, and a study of the development and use of cases. A separate examination in the prose is assigned at the end of the term. Four hours a week. PROFESSOR SANFORD.

Rhetoric.—A familiarity with the general principles of rhetoric being assumed, the work is divided between practical composition and a study of the art on the basis of its philosophy. The criticism of work submitted is conducted as far as possible with each student individually, and the exercises are progressive throughout the year. In connection with the work in rhetoric, a course in outside reading in American literature is assigned, critical notes upon which are submitted once a month. Three hours a week. PROFESSOR WRIGHT.

Solid and Spherical Geometry.—Books VI, VII, VIII, and IX of Phillips and Fisher's *Elements of Geometry*. Four hours a week.

PROFESSOR BRYANT.

WINTER TERM—TWELVE WEEKS

Greek.—Homer, *Odyssey*, Books V, VI, VII, VIII, and IX. The place of the Homeric writings in literature and their language and style are studied. The formation of the verb and the acquiring of a vocabulary receive special attention. Four hours a week. PROFESSOR BURRAGE.

Latin.—Selections from the *Letters* of Cicero. In order to promote correctness in translation and fluency of rendering the Latin period, several written tests in sight translation are given during the term, in which the papers presented are commented upon by the instructors in both the English and the Latin departments. The historical outline takes up the story at the time of the struggle between Republic and Empire and runs contemporaneously with the fortunes of Cæsar and Cicero as written in the *Letters*. Weekly exercises in prose deal largely with the subject of the development, history, and use of mood. Four hours a week. PROFESSOR SANFORD.

Rhetoric.—A continuation of the work of the Fall term. Three hours a week. PROFESSOR WRIGHT.

Algebra.—Convergency and divergency of series; undetermined coefficients; binomial theorem; logarithms; permutations and combinations; probability. Wentworth's *College Algebra*. Four hours a week. PROFESSOR BRYANT.

SPRING TERM—TWELVE WEEKS

Greek.—Selections from Herodotus. Lectures upon Old Greek Life. Four hours a week. PROFESSOR BURRAGE.

Latin.—The *Captives* of Plautus; the *Adelphoe* of Terence. The Roman theatre and the Comedies. Studies in etymology and the early Latin forms. Lectures and readings on the private life of the Romans. Four hours a week. PROFESSOR SANFORD.

Rhetoric.—A continuation of the work of the Fall and Winter terms. Three hours a week. PROFESSOR WRIGHT.

Plane and Spherical Trigonometry.—Solution of right and oblique plane triangles; trigonometric analysis; solution of right and oblique spherical triangles. Phillips and Strong's *Elements of Trigonometry*. Four hours a week. PROFESSOR BRYANT.

SOPHOMORE YEAR

FALL TERM—TWELVE WEEKS

Greek.—Euripides, *Iphigenia among the Taurians.* Lectures and collateral reading on the drama and the Attic theatre. Three hours a week. PROFESSOR BURRAGE.

Latin.—*Germania* and *Agricola* of Tacitus. Comparison of the style of Tacitus with that of other writers of his time. A study of the Roman colonial system. Outline of the history of the later Empire, with brief investigation of the subject of the influence of Rome upon the northern tribes and, incidentally, our own heredity of law and custom from them. Library reading and the study of photographs of Roman remains in Germany and England. Three hours a weeek. PROFESSOR SANFORD.

Rhetoricals.—One oration or essay presented before the College. PROFESSOR WRIGHT.

German.—Thorough pronunciation is emphasized from the beginning and rigorously insisted upon throughout all the courses of study offered in this department. For the elementary stage of grammar study, Harris's *German Lessons* is used. After about six weeks, a part of each recitation hour is devoted to a study of Grimm's law as illustrated in the introduction to Huss's *German Reader;* the reading of the text proper of this reader is then taken up, and Hatfield's *German Lyrics and Ballads* begun toward the end of the term. Easy poems and connected prose extracts, illustrative of the principles of language structure, are committed to memory and recited in class. Conversation in easy German is one of the main features of the daily recitations. Three hours a week. PROFESSOR HENCKELS.

Physics.—Fundamental units of measurement; velocity; acceleration; composition and resolution of velocities; force; momentum; work; energy; power; machines; properties of matter; molecular forces; capillarity. Recitations, solution of problems illustrating principles discussed, and experimental lectures. Three hours a week. PROFESSOR BRYANT.

Zoology.—Lectures with supplementary reading in Kellogg's *Elementary Zoology.* Two hours and one period of laboratory work a week on invertebrates. PROFESSOR BURT.

WINTER TERM—TWELVE WEEKS

Greek.—Thucydides, Book VII. The place of Thucydides in the development of prose and his characteristics as an historian are studied. Three hours a week. PROFESSOR BURRAGE.

Latin.—The *Odes* of Horace. Questions of etymology, syntax, and mythology are subordinated to the literary study of the verse in a continual attempt to appreciate the odes as lyric poems. Lectures on mythology illustrated with photographs and lantern slides. Three hours a week. PROFESSOR SANFORD.

English Literature.—A general survey of English literature from the beginning to the accession of Elizabeth, with assigned reading for study and written discussion. Three hours a week.
PROFESSOR WRIGHT.

Rhetoricals.—One oration or essay presented before the College.
PROFESSOR WRIGHT.

German.—Harris's *German Lessons* (completed). Huss's *German Reader* (completed). Hatfield's *German Lyrics and Ballads* (continued). Poems and prose extracts committed to memory. Easy conversation. Three hours a week.
PROFESSOR HENCKELS.

Physics.—Dynamics of fluids; density; sound, including speed, energy, reflection, refraction, and interference of sound waves; heat, including temperature, calorimetry, fusion, vaporization, thermodynamics. The work consists of lectures, recitations, the solution of numerous problems, and the preparation of a note book containing a full account of the lecture experiments and the principles illustrated by them. Three hours a week.
PROFESSOR BRYANT.

SPRING TERM—TWELVE WEEKS

Required Studies:

Rhetoricals.—One oration or essay presented before the College.
PROFESSOR WRIGHT.

German.—Wesselhoeft's *German Composition* is used for advanced study of grammar; standard grammars are studied by reference. Hatfield's *German Lyrics and Ballads* (completed).

Wilbrandt, *Jugendliebe.* Poems committed to memory. Survey of German Literature (earlier periods), text, Keller, *Bilder aus der deutschen Litteratur.* From the beginning of this term, German will be, as far as possible, the medium of communication in the class room. Three hours a week. PROFESSOR HENCKELS.

Physics.—Light: reflection, refraction, interference, diffraction, and polarization of light waves, and spectrum analysis. Electricity: electrostatic induction and potential, electrostatic machines, electrical units and measurements, magnetic induction and potential, electro-magnetic induction, dynamo-electric machines. As in the winter term, the work consists of lectures, recitations, solution of problems, and the preparation of a note book on lecture experiments. Three hours a week. PROFESSOR BRYANT.

Botany.—Laboratory work and recitations on seed, shoot, root, flower, and fruit. Lectures contrasting seed with spore, and on the more elementary features of germination, nutrition, fertilization, and dissemination. Preparation of herbarium specimens. Two hours and one period of laboratory work a week.

PROFESSOR BURT.

Elective Studies:

Greek. *Apology* and *Crito* of Plato. Lectures on the monuments of Athens. Three hours a week.

PROFESSOR BURRAGE.

Latin.—Selected *Odes* and *Epodes* of Horace. An extension of the work of the winter term. By comparison of the odes with lyrics in Latin and other languages the class attempt to estimate the place of Horace among the poets. The debt of English poetry to Horace is continually referred to, and borrowed or suggested phrases, imitations, and translations in our own lyrics are daily sought in illustration. Very careful preparation of note-books is required. Three hours a week. PROFESSOR SANFORD.

English Literature.—A general survey of English literature from the accession of Elizabeth to the present day, with assigned reading for study and written discussion. Three hours a week.

PROFESSOR WRIGHT.

JUNIOR YEAR

FALL TERM—TWELVE WEEKS

Required Studies:

English Language.—A study of its historical development with special reference to Old English syntax. Lounsbury; Smith. Three hours a week. PROFESSOR WRIGHT.

Rhetoricals.—Two orations or essays presented before the College. PROFESSOR WRIGHT.

History.—Mediæval and Modern Europe; lectures. Three hours a week. PROFESSOR HOWARD.

Chemistry.—Remsen; lectures. A study is made of the non-metallic elements and their principal compounds, and of their relation to the metals. Acids, bases, and salts are studied carefully and their formation illustrated. Numerous chemical problems involving atomic and molecular weights, percentage composition, etc., are solved by the student. Three hours a week. PROFESSOR MCGILTON.

Elective Studies:

Greek.—Aeschylus, *Choephoroe*. Three hours a week. PROFESSOR BURRAGE.

Greek.—Lyric Poetry to Pindar. Three hours a week. PROFESSOR BURRAGE.

[Only one of these courses will be given in 1903–4.]

Latin.—A study in Latin Lyrics. Fragments preserved from the early writers are quoted to point out the beginnings of poetry; many selections from Catullus, Horace, Vergil, Ovid, Tibullus, Propertius and others are read to show the Latin lyric in its perfection; a few poems of the Silver age are given to indicate the changes of form and style to mediæval and monkish rhymes. Three hours a week. PROFESSOR SANFORD.

Roman Archaeology.—Lectures on the topography of Italy and the buildings and statuary of Ancient Rome. Readings on various topics from Middleton, Lanciani, Jordan, Parker, Burn, Schreiber, Piranesi, Canina, and the journals are required, with careful pre-

paration of note books. Photographs, Canina, and Niccolini plates, and stereopticon views. (The course is intended as a background for the study of advanced Latin, and should be elected by all those intending to pursue the subject further.) [To be given in 1904-1905.] Three hours a week. PROFESSOR SANFORD.

English Literature.—The Drama, with special reference to the development of Shakespeare's art. Three hours a week. PROFESSOR WRIGHT.

German.—Wesselhoeft's *German Composition* and advanced grammar (by reference). Outline of German Literature, Keller, *Bilder aus der deutschen Litteratur*, to the time of Schiller and Goethe. Critical study of Schiller's *Wilhelm Tell*. Three hours a week. PROFESSOR HENCKELS.

Political Institutions.—The State. Elements of historical and practical politics. This course treats of the philosophy and historic development of government. It includes an examination of the governments of Greece and Rome and of the Teutonic system, and is designed to lay a foundation for the subsequent study of law and political science. Recitations and lectures. Three hours a week. PROFESSOR HOWARD.

Plane Analytic Geometry.—Loci and their equations; discussion of equations of straight line, circle, parabola, ellipse, and hyperbola. Wentworth's *Analytic Geometry*. Three hours a week. PROFESSOR BRYANT.

Cryptogamic Botany.—Fleshy fungi, lichens, and myxomycetes. Lectures on their structure, classification, and life history; edible and poisonous fungi; fungi as wood destroyers. Laboratory work on the external morphology and microscopic structure of these plants; determinations of the genera and usually of the species studied. Three periods a week. PROFESSOR BURT.

WINTER TERM—TWELVE WEEKS

Required Studies:

Logic.—Jevons's. Three hours a week. PROFESSOR WRIGHT.

Rhetoricals.—Two orations or essays presented before the College. PROFESSOR WRIGHT.

History.—Mediæval and Modern Europe; lectures. Three hours a week. PROFESSOR HOWARD.

Chemistry.—Roscoe; Jones's *Junior Course*; lectures. By means of the study of the preceding term, the student is able, at his own desk and with his own apparatus, to manufacture the most important chemical compounds and to isolate the principal elements. Full notes are kept by him of each step taken and of each observation made, and frequent reports are presented to the instructor. Three hours a week or three periods a week of laboratory work.

PROFESSOR MCGILTON.

Elective Studies:

Greek.—Sophocles's *Electra.* Three hours a week.

PROFESSOR BURRAGE.

Greek.—Theocritus. Three hours a week.

PROFESSOR BURRAGE.

[Only one of these courses will be given in 1903-4.]

Latin.—Selections from the *Letters* of Pliny. The course is intended to give practice in rapid reading. Comparison of the *Letters* with the correspondence of Cicero and others. Lectures on the book making and letter writing of the Romans. Three hours a week. [To be given in 1904-1905.] PROFESSOR SANFORD.

Latin Composition.—Advanced work in grammar and prose composition. Discussion of methods of teaching Latin and examination of text-books used in preparatory work. (A course designed particularly for those intending to teach.) Three hours a week.

PROFESSOR SANFORD.

English Literature.—Victorian Prose: De Quincey, Macaulay, Newman, Arnold, Ruskin. Three hours a week.

PROFESSOR WRIGHT.

German.—Advanced grammar and composition. Keller, *Bilder aus der deutschen Litteratur* (finished) completing the outline of German Literature down to the present time. Wilbrandt, *Der Meister von Palmyra.* Three hours a week.

PROFESSOR HENCKELS.

French.—Grammar: Aldrich and Foster's *Foundations of French.* Careful drill in pronunciation is not lost sight of; an abundance of supplementary easy exercises, designed not only to fix in memory the forms and principles of grammar, but also to cultivate readiness in reproducing natural and colloquial forms of conver-

sational French is one of the main features of the daily recitation. Bruce, *Selections for Sight Translation*. Ohnet, *Le chant du cygne*. Three hours a week. PROFESSOR HENCKELS.

Political Institutions.—The State (continued). A brief treatment of the political history of England, Germany, France and other European countries and a careful examination of their present constitutions. Recitations, lectures, and library work. Three hours a week. PROFESSOR HOWARD.

Differential Calculus.—Differentiation of functions; expansion of functions; indeterminate forms; application of calculus to curves; maxima and minima of functions. Osborne's *Differential and Integral Calculus*. Three hours a week.
PROFESSOR BRYANT.

Physics.—A laboratory course involving measurements of length, mass, time, velocity and acceleration; the verification of the laws of equilibrium of forces; the determination of coefficients of elasticity; the density of solids, liquids, and gases; experiments in sound. Ames and Bliss's *Manual of Experiments in Physics*. Three periods a week. PROFESSOR BRYANT.

Cryptogamic Botany (continued).—Bacteria and hyphomycetes. Lectures on morphology and life history of bacteria, culture methods, some pathogenic species and the diseases they cause, immunity. The laboratory work is in preparation of culture media, sterilization, the isolation of species by plate cultures, transfers, the study of pure cultures, identification of at least two of the cultures. Towards the close of the course, cultures of a few hyphomycetes are made and studied. Three periods a week.
PROFESSOR BURT.

SPRING TERM—TWELVE WEEKS

Required Studies:

Rhetoric.—The work in this course is confined to a consideration of the principles of argumentative composition, Whately being used as a text-book. Three hours a week.
PROFESSOR WRIGHT.

Rhetoricals.—Two orations or essays presented before the college. PROFESSOR WRIGHT.

History.—Mediæval and Modern Europe; lectures. Three hours a week. PROFESSOR HOWARD.

Chemistry.—Roscoe (continued); lectures. The work of this term is mainly laboratory work, the special subject being the study of the metals, their properties and principal compounds. The student is led to recognize individual metals in their compounds by characteristic reactions, and also constructs groupings of the metals with reference to their conduct toward various group reagents. All this work is preparatory to Qualitative Analysis. Three periods a week. PROFESSOR MCGILTON.

Elective Studies:

Greek.—Euripides, *Electra*. Aristophanes, *Frogs*. Three hours a week. PROFESSOR BURRAGE.

Greek.—Selections from Lucian. Three hours a week.
[Only one of these courses will be given in 1903-1904.]
PROFESSOR BURRAGE.

Latin.—A study in Roman Philosophy. Readings from the *Tusculan Disputations* of Cicero, *De Rerum Natura* of Lucretius, with extracts from Seneca, Marcus Aurelius, and Boethius. Three hours a week. [To be given in 1904-1905.]
PROFESSOR SANFORD.

Latin.—A study in the Decline of Latin Literature. Selections from Apuleius, Ausonius, Prudentius, Patristic Latin, and the hymnology of the early Church. The Latin of the Middle Ages. Three hours a week. PROFESSOR SANFORD.

English Literature.—Victorian Poetry: Tennyson, Browning, Mrs. Browning, Matthew Arnold, Swinburne. Three hours a week. PROFESSOR WRIGHT.

German.—Advanced grammar and composition. Poll's *German Prose Composition*, von Jagemann's *German Syntax*. Schiller, *Die Jungfrau von Orleans* and *Maria Stuart*, is read critically. Kluge, *Deutsche National Litteratur* is the work used for a detailed review of the literary history of Germany. Three hours a week. PROFESSOR HENCKELS.

French.—The study is continued along the same lines as during the winter term. *Foundations of French* is completed. Marcou's *Exercises in French Composition*. Daudet, *Trois Contes choisis*

(Sanderson); de Musset, *Histoire d'un merle blanc;* Dumas's *Monte Cristo.* Three hours a week. PROFESSOR HENCKELS.

Elements of Jurisprudence.—This course is especially intended for students who purpose entering the legal profession, and is designed to give a survey of the science and to make the student familiar with its literature and terminology. It consists of a general view of the Roman and Common Law and an examination of the history of both of these systems and their fundamental ideas. This course is open to Seniors and Juniors, study of the Roman and Common Law coming in alternate years. Three hours a week. PROFESSOR HOWARD.

Integral Calculus.—Integration of algebraic and trigonometric expressions; application of integration to plane curves, to curved surfaces, and to volumes. Osborne's *Differential and Integral Calculus.* Three hours a week. PROFESSOR BRYANT.

Surveying.—Use of the chain, compass, transit, level, and plane table; care and adjustments of the instruments; laying out and dividing up land. Considerable time is devoted to field work in order to give the student facility in the use of the instruments. Three periods a week. PROFESSOR BRYANT.

SENIOR YEAR

FALL TERM—TWELVE WEEKS

Required Studies:

Rhetoricals.—Two orations or essays presented before the college. PROFESSOR WRIGHT.

Psychology.—Study of the human intellect, embracing sensation, perception, memory, imagination, and thought. Recitations from the first half of Sully's *Teachers' Handbook of Psychology;* lectures and discussions. Three hours a week. PRESIDENT BRAINERD.

Economics.—Walker's *Political Economy, Advanced Course.* Production, exchange, distribution, and consumption are studied, the object being to give the student a knowledge of general principles. Recitations, lectures, and discussions. Three hours a week. PROFESSOR HOWARD.

Elective Studies:

Greek.—Greek Literature, Poetry: Homer to Aristophanes. Lectures and private reading. Three hours a week. [Not given in 1903-1904.] PROFESSOR BURRAGE.

Greek.—The struggle with Philip of Macedon. Selections from Isocrates and Demosthenes. Three hours a week. [Not given in 1903-1904.]

[These courses will not both be given the same year.]

PROFESSOR BURRAGE.

Latin.—A study in Latin Lyrics. Fragments preserved from the early writers are quoted to point out the beginnings of poetry; many selections from Catullus, Horace, Vergil, Ovid, Tibullus, Propertius, and others are read to show the Latin lyric in its perfection; a few poems of the Silver age are given to indicate the changes of form and style to mediæval and monkish rhymes. Three hours a week. PROFESSOR SANFORD.

Roman Archaeology.—Lectures on the topography of Italy and the buildings and statuary of Ancient Rome. Readings on various topics from Middleton, Lanciani, Jordan, Parker, Burn, Schreiber, and the journals are required, with careful preparation of note books. Photographs, Canina, and Niccolini plates and stereopticon views. (The course is intended as a background for the study of advanced Latin, and should be elected by all those intending to pursue the subject further.) [To be given in 1904-1905.] Three hours a week. PROFESSOR SANFORD.

English Literature.—The Drama, with special reference to the development of Shakespeare's art. Three hours a week.

PROFESSOR WRIGHT.

German.—Advanced grammar continued through Poll's *German Prose Composition* and von Jagemann's *German Syntax*. Goethe, *Faust*, Part I. Boyesen, *Goethe and Schiller*. Kluge, *Deutsche National Litteratur*. Three hours a week.

PROFESSOR HENCKELS.

French.—François's *French Prose Composition*. Corneille, *Le Cid;* Racine; *Andromaque;* Molière, *Les Précieuses Ridicules*. Duval, *Histoire de la littérature française*, private reading. Three hours a week. PROFESSOR HENCKELS.

Constitutional Law.—Cooley's *Principles of Constitutional Law.* Critical study of the United States Constitution. This course is a continuation of the Junior elective. It traces the growth of English political institutions and jurisprudence from Anglo-Saxon times, and includes a study of English Courts and procedure of the present day. Recitations and reading. Three hours a week.

PROFESSOR HOWARD.

History.—Epochs of History. Three hours a week.

PROFESSOR HOWARD.

Astronomy.—Problems of practical astronomy; the moon; sun; revelations of the spectroscope; eclipses; planets; comets and meteors; stars and nebulæ. Young's *Manual of Astronomy.* Three hours a week. PROFESSOR BRYANT.

Chemistry.—Qualitative Analysis; laboratory work. The student pursues a systematic course of qualitative analysis, beginning with the detection of one unknown metal, and finally is able to separate the individual metals from the most complex mixture or compound. Three periods a week. PROFESSOR MCGILTON.

Botany.—Histology and Physiology of Plants. Strasburger's *Text Book of Botany*, Section 1. Recitations and laboratory work on external morphology of plants, the cell, cell-fusion, tissues, tissue systems, the phylogeny and ontogeny of internal structure. Three periods a week. [To be given in 1904–1905. This year's course the same as the Junior Elective.] PROFESSOR BURT.

WINTER TERM—TWELVE WEEKS

Required Studies:

Rhetoricals.—Two orations or essays presented before the college. PROFESSOR WRIGHT.

Psychology.—Study of the feelings and of the will. Recitations from the text-book; lectures and discussions. Three hours a week.

PRESIDENT BRAINERD.

Geology.—Le Conte's *Elements of Geology*, Parts 1 and 2. Dynamical geology; consideration of the atmospheric, aqueous, igneous, and organic agencies acting on and modifying the earth's surface. Structural geology; general form and structure of the earth; sedimentary, igneous, and metamorphic rocks; joints and fissures; mineral veins; mountain origin and structure; denudation. Three hours a week. PROFESSOR BURT.

Elective Studies:

Greek.—Greek Literature, Poetry: Theocritus, the Alexandrian Poets, the Anthology. Lectures and private reading. Three hours a week. [Not given in 1903–1904. This year's course the same as the Junior Elective.] PROFESSOR BURRAGE.

Greek.—The Struggle with Philip of Macedon. Demosthenes and Aeschines *On the Crown*. Three hours a week, [Not given in 1903–1904. This year's course the same as the Junior Elective.]

[These courses will not both be given the same year.]

PROFESSOR BURRAGE.

Latin.—Selections from the *Letters* of Pliny. The course is intended to give practice in rapid reading. Comparison of the *Letters* with the correspondence of Cicero and others. Lectures on the book making and letter writing of the Romans. Three hours a week. [To be given in 1904-1905.] PROFESSOR SANFORD.

Latin Composition.—Advanced work in grammar and prose composition. Discussion of methods of teaching Latin and examination of text-books used in preparatory work. (A course designed particularly for those intending to teach.) Three hours a week. PROFESSOR SANFORD.

English Literature.—Victorian Prose: De Quincey, Macaulay, Newman, Arnold, Ruskin. Three hours a week.

PROFESSOR WRIGHT.

German.—Goethe, *Hermann und Dorothea*, *Torquato Tasso;* Schiller, *Wallenstein's Lager;* Boyesen, *Goethe and Schiller;* Kluge, *Deutsche National Litteratur*. Advanced grammar and composition. Three hours a week. PROFESSOR HENCKELS.

French.—Duval, *Histoire de la littérature française* (continued). *French Prose in the XVII Century* (Warren), Advanced grammar and composition. *Subjunctive in French* (Williams). Three hours a week. PROFESSOR HENCKELS.

History of Philosophy.—Lectures, presenting the main features in the development of philosophy from the time of Descartes. Special topics are assigned for individual research to be presented as theses. Three hours a week. PRESIDENT BRAINERD.

Pedagogy.—A study of the science on the basis of text-book work and collateral reading; lectures. This course is primarily for those intending to teach. Three hours a week.

PROFESSOR HOWARD.

Constitutional Law.—*Principles of Constitutional Law* (continued). Examination of leading cases in the Federal and State Supreme courts. Recitations and readings. Three hours a week.

PROFESSOR HOWARD.

Economics.—Walker's *Advanced Course* (continued). Study of present economic questions, such as money, bimetalism, banking, taxation, labor, socialism, co-operation, tariff and tariff history. Recitations, lectures, and library work. Three hours a week.

PROFESSOR HOWARD.

History.—Epochs of history (continued). Three hours a week.

PROFESSOR HOWARD.

Chemistry.—Qualitative Analysis (continued) and Gravimetric Quantitative Analysis; laboratory work. The characteristic reactions of acid radicals are studied and the complete constitution of unknown bodies is determined. The analysis of minerals and ores forms a part of the work. The various methods for decomposing silicates and refractory substances and bringing them to a condition of solution are carefully studied. Toward the end of the term the student learns the use and manipulation of the chemical balance and makes some simple quantitative determinations of metals. Three periods a week.

PROFESSOR MCGILTON.

Botany.—Histology and Physiology of Plants (continued). Strasburger's *Text-book of Botany*, Section 2. Conclusion of laboratory work on tissues, and recitations, and laboratory work on the stability of the plant body, nutrition, respiration, growth, phenomena of movement and reproduction. Three periods a week. [To be given in 1904-1905. This year's course the same as the Junior Elective.] PROFESSOR BURT.

SPRING TERM—TWELVE WEEKS

Required Studies:

Ethics.—An examination into the nature and ground of moral obligation, followed by a detailed study of the various practical duties of man. Mackenzie's *Manual of Ethics* forms the basis for recitation and discussion. Three hours a week.

PRESIDENT BRAINERD.

International Law.—Woolsey's *International Law.* History; general principles; study of treaties and celebrated cases; reading of diplomatic correspondence in international controversies. Recitations and library work. Three hours a week.

PROFESSOR HOWARD.

Elective Studies:

Greek.—Greek Literature, Prose: Herodotus to Aristotle. Lectures and private reading. Three hours a week. [Not given in 1903-1904. This year's course the same as the Junior Elective.]

PROFESSOR BURRAGE.

Greek.—Selections from Plato's *Republic.* Three hours a week. [Not given in 1903–1904. This year's course the same as the Junior Elective.]

[These courses will not both be given the same year.]

PROFESSOR BURRAGE.

Latin.—A study in Roman Philosophy. Readings from the *Tusculan Disputations* of Cicero, *De Rerum Natura* of Lucretius, with extracts from Seneca, Marcus Aurelius, and Boethius. Three hours a week. [To be given in 1904–1905.] PROFESSOR SANFORD.

Latin.—A study in the decline of Latin Literature. Selections from Apuleius, Ausonius, Prudentius, Patristic Latin, and the hymnology of the early Church. The Latin of the Middle Ages. Three hours a week. PROFESSOR SANFORD.

English Literature.—Victorian Poetry: Tennyson, Browning, Mrs. Browning, Matthew Arnold, Swinburne. Three hours a week. PROFESSOR WRIGHT.

German.—Kluge, *Deutsche National Litteratur* (completed). Schiller, *Die Piccolomini, Wallenstein's Tod.* Lectures upon modern drama in Germany—its representatives; private reading. Three hours a week. PROFESSOR HENCKELS.

French.—Reading of selected essays of Sainte-Beuve (Effinger). Duval, *Histoire de la littérature française* (completed); Victor Hugo, *Notre-Dame de Paris;* French drama and novel of the nineteenth century; lectures; outside reading. Three hours a week.

PROFESSOR HENCKELS.

Pedagogy.—A continuation of the work of the winter term, with supplementary lectures by members of the Faculty on the best methods of teaching in their respective departments. Three hours a week. PROFESSOR HOWARD.

Sociology.—This course includes a study of race characteristics, heredity, environment, education, pauperism, insanity, crime and its punishment, hospitals, prisons, and almshouses. Lectures and readings. Three hours a week. PROFESSOR HOWARD.

Elements of Jurisprudence.—This course is especially intended for students who purpose entering the legal profession, and is designed to give a survey of the science and to make the student familiar with its literature and terminology. It consists of a general view of the Roman and Common Law and an examination of the history of both of these systems and their fundamental ideas. This course is open to Seniors and Juniors, study of the Roman and Common Law coming in alternate years. Three hours a week. PROFESSOR HOWARD.

History.—Epochs of history (continued). Three hours a week. PROFESSOR HOWARD.

Chemistry.—Gravimetric and volumetric quantitative analysis; laboratory work. The work of gravimetric analysis is continued in the handling of more complex substances and their percentage composition is determined. The making of standard solutions and their applications in the determination of the percentage composition of bodies volumetrically form a part of the work. Three periods a week. PROFESSOR MCGILTON.

Geology.—Le Conte's *Elements of Geology*, Part 3. Historical geology; the history of the evolution of earth structure and of the organic kingdom. Short excursions to study features of geological interest. Three periods a week. PROFESSOR BURT.

LATIN SCIENTIFIC COURSE

FRESHMAN YEAR

FALL TERM—TWELVE WEEKS

Latin.—For formal translation such chapters of Livy, Books XXI and XXII, are selected as to constitute a fairly comprehensive story of the second Carthaginian war from its beginnings to the defeat at Cannae. Library readings on the characteristics of Roman and Carthaginian, the nature of the struggle, and the importance of the results of the war are assigned each member of

the class. Written tests in sight reading are from Livy and other historians. During the term there are required about twenty-five prose exercises based upon the text translated. These exercises include a thorough review of the more elementary principles of Latin writing, much practice in the handling of verb forms, and a study of the development and use of cases. A separate examination in the prose is assigned at the end of the term. Four hours a week. PROFESSOR SANFORD.

Rhetoric.—A familiarity with the general principles of rhetoric being assumed, the work is divided between practical composition and a study of the art on the basis of its philosophy. The criticism of work submitted is conducted as far as possible with each student individually, and the exercises are progressive throughout the year. In connection with the work in rhetoric, a course of outside reading in American literature is assigned, critical notes upon which are submitted once a month. Three hours a week. PROFESSOR WRIGHT.

German.—Thorough pronunciation is emphasized from the beginning and rigorously insisted upon throughout all the courses of study offered in this department. For the elementary stage of grammar study, Harris's *German Lessons* is used. After about six weeks a part of each recitation is devoted to a study of Grimm's law as illustrated in the introduction to Huss's *German Reader;* the reading of the text proper of this Reader is then taken up and Hatfield's *German Lyrics and Ballads* begun toward the end of the term. Easy poems and connected prose extracts, illustrative of the principles of language structure, are committed to memory and recited in class. Conversation in easy German is one of the main features of the daily recitations. Three hours a week. Reviews and extra advanced sight reading in class. One hour a week. PROFESSOR HENCKELS.

Solid and Spherical Geometry.—Books VI, VII, VIII, and IX of Phillips and Fisher's *Elements of Geometry*. Four hours a week. PROFESSOR BRYANT.

WINTER TERM—TWELVE WEEKS

Latin.—Selections from the *Letters* of Cicero. In order to promote correctness in translation and fluency of rendering the Latin period, several written tests in sight translation are given during

the term, in which the papers presented are commented upon by the instructors in both the English and the Latin departments. The historical outline takes up the story at the time of the struggle between Republic and Empire and runs contemporaneously with the fortunes of Cæsar and Cicero as written in the *Letters*. Weekly exercises in prose deal largely with the subject of the development, history, and use of mood. Four hours a week.

PROFESSOR SANFORD.

Rhetoric.—A continuation of the work of the fall term. Three hours a week. PROFESSOR WRIGHT.

German.—Harris's *German Lessons* (completed); Huss's *German Reader* (completed); Hatfield's *German Lyrics and Ballads* (continued). Poems and prose extracts committed to memory. Easy conversation. Three hours a week. Reviews and extra advanced sight reading in class. One hour a week.

PROFESSOR HENCKELS.

Algebra.—Convergency and divergency of series; undetermined coefficients; binomial theorem; logarithms; permutations and combinations; probability. Wentworth's *College Algebra*. Four hours a week. PROFESSOR BRYANT.

SPRING TERM—TWELVE WEEKS

Latin.—The *Captives* of Plautus; the *Adelphoe* of Terence. The Roman theatre and the Comedies. Studies in etymology and the early Latin forms. Lectures and readings on the private life of the Romans. Four hours a week. PROFESSOR SANFORD.

Rhetoric.—A continuation of the work of the fall and winter terms. Three hours a week. PROFESSOR WRIGHT.

German.—Wesselhoeft's *German Composition* is used for advanced study of grammar; standard grammars are studied by reference. Hatfield's *German Lyrics and Ballads* (completed). Wilbrandt, *Jugendliebe*. Poems committed to memory. Survey of German Literature (earlier periods), text, Keller, *Bilder aus der deutschen Litteratur*. From the beginning of this term, German will be, as far as possible, the medium of communication in the class-room. Three hours a week. Reviews and extra advanced sight reading in class. One hour a week,

PROFESSOR HENCKELS.

Plane and Spherical Trigonometry.—Solution of right and oblique plane triangles; trigonometric analysis; solution of right and oblique spherical triangles. Phillips and Strong's *Elements of Trigonometry*. Four hours a week. PROFESSOR BRYANT.

SOPHOMORE YEAR

FALL TERM—TWELVE WEEKS

Latin.—*Germania* and *Agricola* of Tacitus. Comparison of the style of Tacitus with that of other writers of his time. A study of the Roman colonial system. Outline of the history of the later Empire with brief investigation of the subject of the influence of Rome upon the northern tribes, and, incidentally, our own heredity of law and custom from them. Library reading and the study of photographs of Roman remains in Germany and England. Three hours a week. PROFESSOR SANFORD.

Rhetoricals.—One oration or essay presented before the college. PROFESSOR WRIGHT.

German.—Wesselhoeft's *German Composition* and advanced grammar (by reference). Outline of German Literature, Keller, *Bilder aus der deutschen Litteratur*, to the time of Schiller and Goethe. Critical study of Schiller's *Wilhelm Tell*. Three hours a week. PROFESSOR HENCKELS.

Physics.—Fundamental units of measurement; velocity; acceleration; composition and resolution of velocities; force; momentum; work; energy; power; machines; properties of matter; molecular forces; capillarity. Recitations, solution of problems illustrating principles discussed, and experimental lectures. Three hours a week. PROFESSOR BRYANT.

Physiology.—Huxley's *Elementary Lessons*. Two hours and one period of laboratory work a week. PROFESSOR BURT.

Zoology.—Lectures with supplementary reading in Kellogg's *Elementary Zoology*. Two hours and one period of laboratory work a week on invertebrates. PROFESSOR BURT.

WINTER TERM—TWELVE WEEKS

Latin.—The *Odes* of Horace. Questions of etymology, syntax, and mythology are subordinated to the literary study of the verse in a continual attempt to appreciate the odes as lyric poems.

Lectures on mythology illustrated with photographs and lantern slides. Three hours a week. PROFESSOR SANFORD.

English Literature.—A general survey of English literature from the beginning to the accession of Elizabeth, with assigned reading for study and written discussion. Three hours a week.
PROFESSOR WRIGHT.

Rhetoricals.—One oration or essay presented before the college.
PROFESSOR WRIGHT.

German.—Advanced grammar and composition. Keller, *Bilder aus der deutschen Litteratur* (finished), completing the outline of German Literature down to the present time. Wilbrandt, *Der Meister von Palmyra*. Three hours a week.
PROFESSOR HENCKELS.

Physics.—Dynamics of fluids; density; sound, including speed, energy, reflection, refraction, and interference of sound waves; heat, including temperature, calorimetry, fusion, vaporization, thermodynamics. The work consists of lectures, recitations, the solution of numerous problems, and the preparation of a note book containing a full account of the lecture experiments and the principles illustrated by them. Three hours a week.
PROFESSOR BRYANT.

Botany.—Morphology of cryptogams. Types studied are gloeocapsa, oscillaria, pleurococcus, spirogyra, ectocarpus, rockweed, bacteria of the mouth, rhizopus, lachnea, grain rust, moss, fern. One lecture and two periods of laboratory work a week.
PROFESSOR BURT.

SPRING TERM—TWELVE WEEKS

Required Studies:

Rhetoricals.—One oration or essay presented before the college.
PROFESSOR WRIGHT.

Physics.—Light: reflection, refraction, interference, diffraction, and polarization of light waves, and spectrum analysis. Electricity: electrostatic induction and potential, electrostatic machines, electrical units and measurements, magnetic induction and potential, electro-magnetic induction, dynamo-electric machines. As in the winter term, the work consists of lectures, reci-

tations, solution of problems, and the preparation of note book on lecture experiments. Three hours a week.

PROFESSOR BRYANT.

Botany.—Laboratory work and recitation on seed, shoot, root, flower, and fruit. Lectures contrasting seed with spore and on the more elementary features of germination, nutrition, fertilization, and dissemination. Preparation of herbarium specimens. Two hours and one period of laboratory work a week.

PROFESSOR BURT.

Elective Studies:

Latin.—Selected *Odes* and *Epodes* of Horace. An extension of the work of the winter term. By comparison of the odes with lyrics in Latin and other languages the class attempt to estimate the place of Horace among the poets. The debt of English poetry to Horace is continually referred to, and borrowed or suggested phrases, imitations, and translations in our own lyrics are daily sought in illustration. Very careful preparation of note-books is required. Three hours a week. PROFESSOR SANFORD.

English Literature.—A general survey of English literature from the accession of Elizabeth to the present day, with assigned reading for study and written discussion. Three hours a week.

PROFESSOR WRIGHT.

German.—Advanced grammar and composition. Poll's *German Prose Composition*. Von Jagemann's *German Syntax*. Schiller, *Die Jungfrau von Orleans* and *Marie Stuart*, is read critically. Kluge, *Deutsche National Litteratur* is the work used for a detailed review of the literary history of Germany. Three hours a week. PROFESSOR HENCKELS.

Zoology.—Morphology of vertebrates. Lectures on the comparative morphology and development of vertebrates. The laboratory work is dissection of the cat and of the frog. One lecture and two periods of laboratory work a week. PROFESSOR BURT.

JUNIOR AND SENIOR YEARS

In the Junior and Senior years, the studies of the Latin Scientific Course are identical with those of the Classical Course already given on the preceding pages.

DEPARTMENTS OF INSTRUCTION

LANGUAGE AND LITERATURE

GREEK

The work in Greek aims at so enlarging the student's power of accurate apprehension that he may be able to appreciate Greek literature justly and to enjoy it.

The historical interest of the Greek writings, as being the first essays in their several departments and as influencing later efforts, is kept in view, as well as their value as pictures of the past.

The following outline shows the arrangement of the work given in 1903-1904:

FRESHMEN (REQUIRED)

1. *Select Orations* of Lysias. Composition. Fall term.
2. Homer, *Odyssey*. Winter term.
3. Herodotus. Old Greek Life. Spring term.

SOPHOMORES (REQUIRED)

4. Euripides, *Iphigenia among the Taurians*. Fall term.
5. Thucydides, Book VII. Winter term.

SOPHOMORES (ELECTIVE)

6. Plato, *Apology* and *Crito*. Monuments of Athens. Spring term.

JUNIORS AND SENIORS (ELECTIVE)

7. Aeschylus, *Choephoroe*. Fall term, or
8. Lyric Poetry to Pindar. Fall term.

9. Sophocles, *Electra*. Winter term, or
10. Theocritus. Winter term.
11. Euripides, *Electra;* Aristophanes, *Frogs*. Spring term, or
12. Selections from Lucian. Spring term.

LATIN

That there may be the best insight into the structure of the language, a thorough review of grammatical principles has been found necessary during the first two terms of the Freshman year. Students will be expected, on entering, to have such familiarity with forms, and such vocabulary, as to be able both to write prose composition after model paragraphs taken from the authors daily translated in the class, and to make a somewhat critical study of word order and style.

In the second year, principles of syntax are supposed to to have been mastered, and the student, with the reading of the text, makes a careful study of the religious, political, and social life of the Roman people as pictured in the writing of the authors chosen for translation. As these authors present their several views, the influence of the national life upon the contemporary world is emphasized, and the continuity of that influence to the present time is often considered worthy of investigation.

In the elective work of the last two years there are studies in topography, antiquities, and art; in advanced prose composition for those intending to teach the subject; in rapid reading; in the drama; in the lyrics, developing into mediæval poetry and the hymns; and in philosophy.

To consistently keep three ideals before the student entering the department, namely, that of translating Latin into the best idioms of his own language and of finally interpreting the thought without translation, that of forming an estimate of the place of the Roman nation in history

and that of obtaining a view of the relation of the Roman writings to the other literatures of the ancient world as well as the debt of the modern languages to Latin, the courses have been arranged at present in the following order:

FRESHMEN (REQUIRED)

1. Selections from Livy, Books XXI and XXII. Prose composition through Cases.
2. The *Letters* of Cicero. Prose composition through Mood and Indirect Discourse.
3. The *Captives*. Dramatic poetry and the theatre.

SOPHOMORES (REQUIRED)

4. *Germania* and *Agricola*. Historical review and the influence of Rome upon her colonies.
5. Selections from the *Odes* of Horace.

SOPHOMORES (ELECTIVE)

6. Selections from the *Odes*, *Epodes*, and *Satires* of Horace. The influence of Horace upon the later poets.

JUNIORS AND SENIORS (ELECTIVE) 1903-1904

7. Lyrics of the Golden and Silver Ages.
8. Advanced Prose Composition.
9. The later Lyrics and the Hymnology of the early church.

JUNIORS AND SENIORS (ELECTIVE) 1904-1905

10. Topography, Antiquities, and Art.
11. Selections from Pliny the Younger. Rapid reading.
12. Selections from the philosophical writings of Cicero, Lucretius, and Seneca.

ENGLISH

The study of English is on the two-fold basis of the language and the literature. Text-books are supplemented by the materials of the library and work is brought to date, so far as practicable, by the additional means of lectures. The department aims to secure a knowledge of historical development in the English tongue; an appreciation of

what is best in the writings of its users; and ability in personal practice for creditable literary work. To secure these results three lines of study are pursued:

I. *English Literature.*—In connection with the work in rhetoric, a collateral course of reading in American literature is required throughout the Freshman year. The Winter and Spring terms of the Sophomore year are given to a general survey of the principal English authors from Chaucer to the present time, with a rapid treatment of the various phases of English literary development. The leading facts of English history are also discussed, whenever they are necessary to an adequate understanding of the subject. The work is introductory to the more detailed investigations of the various elective courses.

II. *Rhetoric and the English Language.*—The work in rhetoric is placed at the beginning of the college course and is continued through three terms. A familiarity with the common rules of rhetoric is assumed and the study is conducted largely from the standpoint of its philosophy; an abundance of written work, however, is introduced for its immediately practical results. The Spring term of the Junior year is given to a consideration of rhetoric as the art of persuasion, with Whately as a text-book.

III. *Rhetoricals.*—Rhetorical exercises, attended by the entire college, are conducted in the chapel on Saturday mornings. Their aim is to train the students in the appropriate presentation of original thought. Four orations or essays are delivered by each Senior, Junior, and Sophomore.

The English schedule, aside from the rhetoricals, is as follows:

FRESHMEN (REQUIRED)

Rhetoric, with collateral reading in American literature. Three terms.

SOPMOMORES (REQUIRED)

History of English literature. Winter term.

SOPHOMORES (ELECTIVE)

History of English literature (continued). Spring term.

JUNIORS (REQUIRED)

History of the English language. Fall term.
Deductive Logic. Winter term.
Rhetoric, Whately. Spring term.

JUNIORS AND SENIORS (ELECTIVE)

Detailed investigation of various literary forms, as the Drama, the Novel, the Essay, Narrative Poetry, Lyric Poetry, with courses in Old and Middle English and in the principles of literary criticism given in alternate years. Three terms.

GERMAN AND FRENCH

Much of the advanced knowledge and thought of the world is published in the German and French languages. In quantity and value of records of new and independent investigation and discovery, the French comes next to the German. The English-speaking student or professional man who is able to read fluently the German and French languages has access thereby to nearly all the valuable records of investigation at the present day in any department of human knowledge.

While the ability to read German and French freely is a valuable acquisition to the man of business in America, as in other countries, it is an absolute necessity to the educator, the investigator, and the professional man who does not wish to be left hopelessly in the rear by those who possess this ability and use it.

It is admitted that the German language affords an excellent opportunity for mental discipline. Throughout the first year the aim is primarily to give to the student a gram-

matical and practical knowledge of German and of French —to form an adequate introduction to the study of their literatures in subsequent years. By a practical knowledge is meant ability to read these languages readily, without translating, ability to understand them with ease when spoken, and ability to use them in both speaking and writing; this ability to understand the spoken as well as the written language is secured by conducting in the language studied the most of the work in the different courses.

PHILOSOPHY

The department of Philosophy is under the charge of the President. Three hours a week are required throughout the Senior year, and three hours more a week during the Winter term may be taken as an elective. The aim in this course is to direct the student to the highest sources of knowledge concerning himself and his relations to nature and to God.

PSYCHOLOGY

The Science of Mind is pursued through the Fall term. It is taught chiefly as a science based upon the facts of consciousness; speculative and metaphysical questions are kept largely in the background; the aim is principally to ascertain the various modes of mental activity, to determine the scope and function of the several faculties of the mind, and to discover how they can be best developed and trained.

MORAL SCIENCE

During the third term three hours a week are required for the study of Moral Science. This involves a consideration of the fundamental principles of Christian morality, and of the relation of the teachings of Christ to the highest truths of philosophy and life.

HISTORY OF PHILOSOPHY

During the Winter term the History of Philosophy is taught as an elective. The more important systems of thought that have appeared in the past are discussed and criticised; and as far as practicable the present status of metaphysical problems is presented.

PEDAGOGY

In view of the fact that many graduates become teachers, a course in Pedagogy is offered to the Senior class. This course will be under the immediate supervision of one instructor and will be based upon a text-book, but each of the other members of the Faculty will supplement it with lectures upon the theory and practice of teaching as applied to his particular department. In addition, the study of psychology will be pursued, under the direction of the President, with special reference to the subject of mind development and training. The course as thus formulated, with collateral reading, is intended to represent a full year's work in pedagogy and methods of teaching as pursued in the leading normal colleges of the country.

HISTORY AND POLITICAL SCIENCE

HISTORY

The course of instruction in History and Political Science has been arranged so as to form a consecutive whole. A general knowledge of the history of England and America is assumed, and special attention is first given to the study of the constitutional development of those countries. The

growth of the present American and English political institutions is traced from their very first manifestations down to the present day. The required course in general history, in the Junior year, is made as broad and thorough as possible, and, at the same time, is intended to serve as a special preparation for the studies of constitutional and international law, political economy, and political science, which follow, and for which such a course is considered essential, as giving the necessary groundwork. While following in the main the broad outlines laid down in the text-book, the course is supplemented by outside reading, and the student constantly referred to the principal treatises and leading authorities. In an elective course running through the Senior year, important epochs in mediæval and modern history are considered in detail.

POLITICAL SCIENCE

The aim in this department is to instruct the student as to the workings of government, and then to prepare him to meet intelligently the social and economic questions that are likely to confront him. The work begins in the Junior year with the study of political institutions. The object is two-fold: first, to trace the rise of each institution historically; second, to acquaint the student with the present constitutions of the leading countries of the world.

The course in Jurisprudence is open to both Seniors and Juniors, the Roman and Common Law being studied alternate years, and the course is so arranged as to give to students who complete it instruction in the elements of both these great legal systems.

In Constitutional Law the purpose is to give both the general student and the prospective lawyer a thorough grounding in the general principles of our organic law and to save to the latter some preliminary work in his professional studies.

In International Law the general principles of the subject are outlined and special attention is given to the leading treaties of the United States.

In Political Economy, which commences in the Senior year, the first term is devoted to a study of the leading principles of economic science, the aim being to give a general outline of the subject; the second term is elective and devoted to a more exhaustive study of some one special economic topic. The course in this department allows of considerable latitude, so that important questions, such as modern socialism, labor organization, nationalization of land, management of railroads, banking, money, tariff, interstate commerce, taxation, etc., may be taken up to meet the needs of the students. But whatever the subject, special importance is attached to original research and investigation. To that end library work is insisted upon and special theses and reports are frequently demanded. And in general, both in the required and in the elective work, investigation from the original sources and by independent methods is encouraged, and collateral reading is required.

MATHEMATICS AND ASTRONOMY

The instruction in this department is given with a twofold purpose. There is first the aim to give the student such a thorough knowledge of the facts and principles that he will be able to apply them in the solution of any problem requiring them. Second, and of even more importance, is the endeavor to train the mind of the student in logical thinking and close reasoning. The mathematical exercises calling for accurate definition and correct reasoning are intended to be so applied as to enable the student

to acquire the power of grasping a subject and reasoning about it, whether that subject be mathematical or not.

The work begins with a thorough training in geometry and algebra, as the necessary foundation for all further mathematical study. These are followed by plane and spherical trigonometry, which occupy the remainder of the Freshman year. Elective courses in analytical geometry, differential and integral calculus, and in surveying are offered in the Junior year. The object of these elective courses is to enable those wishing to take up further work in engineering to prepare themselves for it.

Astronomy is a Senior elective. The aim is to give the student a thorough knowledge of the fundamental principles of this important science, but especial prominence is also given to the important results attained by the most recent advances in physical science.

MECHANICS AND PHYSICS

The course in Physics is introduced by a thorough discussion of the principles of statics and dynamics during the Fall term of the Sophomore year. The remainder of the year is given to a study of the principles of general physics, the subjects being abundantly illustrated with experimental lectures.

Through the generosity of Hon. A. B. Hepburn a beginning has been made in the equipment of the physical laboratory and sufficient apparatus has been obtained for the work of one term. This will cover the winter term of the Junior year. Measurements of mass, length, time, velocity and acceleration will be made by the students, who will thereby verify for themselves the principles studied

during the Sophomore year. A complete report of each experiment, giving apparatus used, the measurements taken, and the results obtained, will be required of each student taking this course.

NATURAL HISTORY

The purpose of the work in this department is to give such a view of the earth and of its living organisms—objects always about us and constantly presenting peculiar and interest-arousing problems—as should, because of its importance, be included in a liberal education. This view is made as real as possible by appropriate laboratory studies. In addition to their general educational value, the various courses possess a special value for those intending to take university work in the same lines, to teach, to enter the ministry, or to study medicine.

The following outline shows the arrangement of the work :

SOPHOMORES (REQUIRED)

1. Zoology. General course; entire class; Fall term.
2. Human Physiology. Latin-Scientific division; Fall term.
3. Botany. Morphology of cryptogams; Latin-Scientific division; Winter term.
4. Botany. General course; entire class; Spring term.

SOPHOMORES (ELECTIVE)

5. Zoology. Morphology of vertebrates; Latin-Scientific division; Spring term.

JUNIORS AND SENIORS (ELECTIVE)

6. Cryptogamic Botany. Fungi and lichens; Fall and Winter terms.
7. Histology and Physiology of Plants. Fall and Winter terms.

(Courses 6 and 7 are given in alternate years.)

SENIORS

Geology. Required, Winter term; elective, Spring term.

ZOOLOGY

The work in Natural History opens at the beginning of the Sophomore year with a course in zoology, in which the chief groups of animals are considered, not only with regard to their morphology, but also from the standpoint of their embryological development. The aim of the course is to give not only a familiarity with the general forms of animal life, but also a knowledge of some phases of the evidence in regard to the evolution of life, and to prepare the student to read the more understandingly current literature which has to do with variation, heredity, and other biological problems. The laboratory work is devoted to invertebrates and begins with the study with the microscope of Amœba and Paramecium or Vorticella by each student. The invertebrate material which can be obtained, for class use, from the region about is supplemented by marine forms from the Marine Biological Laboratory at Wood's Holl.

The other courses in zoology are human physiology during the Fall term, and morphology of vertebrates during the Spring term of the Sophomore year. The former course is made as practical as possible by laboratory demonstrations, and by the student's study of preparations showing the microscopic structure of the more important organs and tissues. In the latter course the laboratory work on vertebrates is a direct continuation of that on invertebrates in Course 1.

BOTANY

The work in Botany begins with an introductory course, in which the morphology of the cryptogams, or flowerless plants, is taught by the laboratory study with the microscope of selected illustrative plant types, ranging from unicellular algæ and fungi to mosses and ferns. This is a required course for the Latin-Scientific division and is

followed in the Spring term by a course of more general nature—Course 5—taken by the entire Sophomore class. This last is a companion course to Course 1 in zoology. The laboratory work is upon the gross structure and functions of phænogams, or flowering plants. In addition to the lectures, the recitations cover Stevens's Botany, and the student is trained to some degree of facility in the determination of flowering plants and encouraged to enter upon the formation of an herbarium, but only a part of the time of the course is so available.

Elective work in Botany is open to Juniors and Seniors in two courses, each of which extends through the Fall and Winter terms. These courses are given in alternate years. In the advanced course in Cryptogamic Botany, the attention is given for periods of several weeks each to basidiomycetes, myxomycetes, bacteria, moulds, pyrenomycetes, and lichens. The laboratory work is largely on collections or cultures made by the students. The course aims to give knowledge of the morphology, life history, and relationships of these not generally understood plants, and, in certain groups, to give practice in specific determination and acquaintance with the best works on the various groups. In the case of the basidiomycetes (mushrooms and toadstools), the early opening of the college year makes it possible to study in their fresh condition plants of most of the genera, and to identify many species of economic interest. In the alternate course the objects of study are the microscopic structure of the tissues of plants; the physical, chemical, and vital properties of protoplasm and its relations to its surroundings; and such vital processes as the absorption of food, its conduction through the plant and its assimilation, also growth, nuclear phenomena, reproduction, repair, fall of leaves, nitrification of the soil, etc.

GEOLOGY

The work in natural history closes with a course in Geology given to the Senior class during the Winter and Spring terms. The forces now in operation are considered as active agents through past time in shaping the earth into its present condition. The geological history of the earth and of its general formations is treated, and the geology of the region about is taken up in greater detail, excursions to points of geological interest in the vicinity being made.

CHEMISTRY

The instruction in required Chemistry is designed to give the student an insight into the philosophy of the science, and at the same time to make him practically acquainted with the more frequently occurring elements and compounds. In addition, the student is expected to become so familiar with chemical manipulation by working at the laboratory tables that he can arrange apparatus and make experiments illustrating the principles discussed in the ordinary text-books.

Each member of the Junior class will spend six hours a week during a portion of the Winter term and the entire Spring term in laboratory work.

Chemistry as a Senior elective through the entire year is devoted exclusively to laboratory work, in the following courses:

Course I.—Qualitative analysis in the Fall term, in which special attention is given to the analytical reactions of each base, and to practice in the separation of metals from each other in unknown liquid and solid mixtures. The analytical reactions of each acid and the separations of the acids are also carefully

studied. Full notes are made by the student on all processes and reactions involved and frequent reports are made to the instructor.

Course II.—Gravimetric quantitative analysis in the Winter term.

Course III.—Volumetric quantitive analysis in the Spring term.

Courses II and III are elective only for those who have completed Course I. Mineral analysis and the determination of the constitution of unknown substances form a large part of the above courses. Besides performing indicated work, the student is encouraged to enter upon some work of independent investigation.

(Apparatus and material are furnished by the College; that broken or used is paid for by the student.)

GENERAL INFORMATION

LOCATION

MIDDLEBURY COLLEGE is situated at Middlebury, Addison County, Vermont, a village on the Rutland railroad, midway between Rutland and Burlington. The location of the College in a community within reach of the larger centers of population, and yet unusually free from the temptations often found in or near the city life, has justified the wise choice of the founders. The village is delightfully situated on the Otter River, having attractive views of the Champlain Valley, the Green Mountains, and the Adirondacks. The atmosphere is remarkable for its purity, being exposed to no malarial influence from any conceivable source. The prevailing good health of the students for many years has been a most gratifying fact. A system of village water works has now been completed by which water of unexcelled purity is brought from mountain springs eight miles distant.

EGBERT STARR LIBRARY

During the celebration of the centennial exercises in July, 1900, occurred the dedication of a library building erected through the liberality of Egbert Starr, who bequeathed $50,000 for this purpose. To this bequest his son, Dr. M. Allen Starr, has added $5,000 for the decoraation of the building, and also $5,000 for the purchase of books. The Library, standing at the southern end of the campus, is of white marble and in architectural features is adapted from a classic design. The main room is in-

tended for purposes of reading and research, where every facility for consultation of standard books of reference and periodicals is supplied. The capacity of the stacks and reference room is 90,000 volumes.

The library now contains 26,800 volumes and is a depository of government publications. All the books are accessible to students. The library is open seven hours each week day except Saturday, when it is open during the forenoon only.

READING ROOM

In the south division of Painter Hall there is a reading room containing the daily and weekly papers, open during each day and evening.

WARNER SCIENCE HALL

Warner Science Hall has been erected through the generosity of Mr. Ezra J. Warner, of the Class of 1861, in memory of his father, Hon. Joseph Warner, formerly a citizen of Middlebury, and a trustee of the College from 1850 to 1865. The cost, without apparatus, was $82,500.

The building is arranged for the departments of Physics, Biology, and Chemistry. It is located on the north-eastern slope of the campus and faces the south. It is of white Rutland marble, 112 feet in length, 80 feet in depth through the central portion at the ground elevation, and 46 feet at the ends. There is an elaborate system of ventilation by hoods and flues, the heating is by steam, and the illumination by both gas and electricity.

The first floor is devoted to the department of Physics. The Physical Lecture room, lighted on the south and east sides, is equipped with hot and cold water, gas, compressed air, and electricity. A solid masonry pier, extending to bed rock foundation, forms one end of the lecturer's desk;

along this a beam of sunlight can be sent from the heliostat at one of the south windows. Opening from the lecture room is the apparatus room and the work shop equipped with lathe and necessary tools for the construction and repair of apparatus.

At the west end of this floor are the Physical Laboratory, the private laboratory of the instructor, and a dark room. The main laboratory is lighted on three sides. It has two masonry piers for galvanometers and other delicate instruments and slate shelves fastened to the wall of the south side. There are tables for ordinary experimental work, porcelain sinks with hot and cold water, hood, and cases for apparatus. The dark room is fitted for work in photometry and photography. The private laboratory has desks and cases for apparatus and a departmental library containing periodicals and books of reference useful in the experimental work.

On this floor, in the hemicycle at the north side, a lecture room has been arranged with one hundred and fifty seats for purposes of general scientific lectures.

The second floor is given up to lecture and laboratory work in natural history, and to the museum exhibits. A wide and well-lighted hall on the north opens into three large rooms on the east, south, and west, the Biological Laboratory and Lecture Room, the Botanical Laboratory, and Museum, respectively.

The Biological Laboratory and Lecture Room is fitted with triple windows on the three sides. Laboratory tables for four students each are arranged in front of the windows. The central portion of the room is fitted up with chairs with arm supports for the purpose of taking notes and for recitation exercises The lecturer's table, cases for apparatus, and for materials used in dissections, a Wardian case in which plants may be kept growing free from the dele-

terious influence of a changing temperature, cases of birds, marine invertebrates, and specimens needful for continual reference, are conveniently arranged in this laboratory.

The Botanical Laboratory is intended for the elective advanced work in plant histology and physiology, and on fungi and bacteria. It has, besides the working tables, lockers, sink, wall cases for laboratory supplies, reference books, and apparatus including compound microscopes of approved continental model for laboratory use, dry and steam sterilizers, incubator, autoclave, imbedding apparatus, culture apparatus for work with bacteria and fungi, etc. A small room adjoining for the private use of the professor in charge has also for the use of students a hood, freezing apparatus, and microtome.

At the east end of the third floor, which is entirely devoted to chemistry, is a lecture room, furnished with raised seats, for the use of the classes in this department. Adjoining this room are a private laboratory, for the use of the instructor, and the balance room equipped with Becker chemical balances so mounted as to be free from all out-side vibrations. The Quantitative Laboratory occupies the principal portion of the central section of the floor, and is furnished with desks, and all necessary apparatus for doing thorough work in both gravimetric and volumetric quantitative analysis. The entire west end of the floor is given up to the Laboratory of general chemistry and qualitative analysis in a room containing forty-eight individual desks. A hydrogen-sulphide room provided with special draught-hoods and drying ovens communicates with both the Qualitative and Quantitative laboratories; a store room, also accessible to both, contains chemicals and apparatus for immediate use. Adjoining the Quantitative Laboratory is a dark room for the storage of chemicals sensitive to light and for work in photography. On the basement

floor a fire-proof room is provided for work in organic chemistry.

The laboratories are furnished throughout with running water, pneumatic troughs, draught hoods, gas, and electricity; several Sprengel-Bunsen pumps are provided for rapid filtrations and for producing air blasts in blow-pipe analysis. There is a departmental library, where all the important books of reference are to be found and the leading chemical journals are kept on file.

All work in the chemical laboratories is conducted under the direct supervision of the Professor of the department.

MUSEUM OF NATURAL HISTORY

In the Museum on the second floor of the Warner Science Hall the natural history collections are arranged. In zoology the native birds are represented, and also sponges, corals, and other marine forms, contributed in part from the collections of the United States Fish Commission.

A collection representing the rocks of the State was made during a geological survey conducted by Professor Adams, then occupying the chair of Natural History. He also arranged a series of fossils representing the different geological formations, and this collection has since been enriched by notable additions from many sources. Besides this general series, a special collection of the fossils of the Champlain valley has been made, largely by Professor Seely.

For instruction in mineralogy, a complete working set of minerals is to be found upon the shelves, and material for the study of general petrology is also abundant.

A valuable collection of shells for instruction in conchology is contained in the Museum; also a full series of the land and water shells of Vermont collected and arranged by Professor Adams.

The Herbarium is located in a specially adapted room on

the ground floor. It contains a complete series of the flowering plants and ferns of the Champlain valley, collected by President Brainerd, a collection which, during the recent activity in systematic botany, has been kept up to date by yearly additions. Collections of the cryptogams —and more especially of the higher fungi of Vermont—are now being accumulated by Professor Burt.

The Professor of Natural History is Curator of the Museum.

MUSEUM

On the first floor of the Chapel building, rooms are arranged for purposes of a general museum. The collection now includes valuable Assyrian tablets, slabs and casts and other objects of interest in Semitic history, a set of the costumes and implements of the natives of the Yukon valley, and relics of local and general historic interest.

DORMITORIES

Starr Hall has accommodations for sixty-four men. Each suite consists of a study, a bedroom, and closets, and will accommodate two students.

Painter Hall has fourteen suites of rooms, which are intended for two men each. These suites have study, bedroom, and closet, are heated with steam and lighted with electricity. In this building, in addition to the room rent, there is a charge of $25 a year for each suite for heat and light; this bill must be settled at the end of the Fall term.

The rooms in both halls are unfurnished.

BATTELL HALL

The large dwelling-house, built by President Kitchel and purchased by the College with funds bequeathed by Hon. Joseph Battell of the Class of 1823, is fitted up for the use of the young women in college. The building is heated with steam, the rooms are all comfortably furnished

except with lamps and linen, and the management is placed in the hands of a competent matron, Mrs. Charles N. Brainerd. By this arrangement room and board are furnished for $4.00 a week.

RELIGIOUS SERVICES

The exercises of each day except Sunday begin with religious services, which all students must attend.

They are also required to attend public worship on Sunday morning, at such churches as are decided upon by the students or their parents.

In a room fitted up for the purpose, the Young Men's Christian Association holds meetings on Tuesday evenings and the Young Women's Christian Association on Wednesday afternoons, to which the students are welcome.

ATHLETICS

At the west of the college buildings is the Athletic Field. A running track, one quarter of a mile in length, encloses the baseball and the football grounds. A grand stand gives accommodation for 400 spectators. Near by ample space is provided for the tennis courts belonging to various associations.

The athletic interests of the College are controlled by the Athletic Association of the students acting together with a committee from the Faculty.

GYMNASIUM

The Gymnasium in the south division of Painter Hall is supplied with apparatus adapted to the systematic physical development of the students. In connection with it are bath rooms and a dressing-room furnished with lockers. It is open during the whole day and evening.

EXPENSES

The following statement embraces the principal necessary expenses of a man during a collegiate year, except for clothing and text-books:

Tuition,	$ 80.00
Annual Fee for incidentals (covering expenses of public rooms, library, reading-room, gymnasium, etc.)	12.00
Room Rent in Starr or Painter Hall,	15.00
Board for 37 weeks, at $2.75,	101.75
Fuel, lights, and washing,	25.00
	$233.75

Laboratory fees additional:—

Elective physics,	$ 3.00 per term.
Elective biology,	3.00 per term.
Required chemistry (two terms),	2.00 per term.
Elective chemistry,	3.00 per term.

The expenses for room rent, fuel, and lights are estimated on the supposition that two students occupy a room. This is required in Painter Hall, but a student may room alone in Starr Hall. Where a student rooms alone the charge for rent is $24.00 per year. Besides the expenses given there are others voluntarily imposed as taxes by classes and fraternities. These, and the expenses for clothing, furniture, books, etc., will vary with circumstances and the habits of the student.

By practicing rigid economy a student can limit the cost of the college year to $300.00, while $400.00 will be a liberal allowance. This estimate does not include expenses for travel or clothing, and it may be diminished by scholarships and prizes.

All college bills are to be settled annually, such settlement being a condition precedent to the continuance of the student in college; the college bills of Seniors must be settled not later than two months before Commencement.

The Rutland Railroad and Central Vermont Railroad carry students for two cents a mile between Middlebury and their places of residence.

BENEFICENT FUNDS

The Waldo Fund, given by the late Mrs. Catharine Waldo of Boston, and the Baldwin Fund, received from the estate of the late John C. Baldwin, Esq., of Orange, N. J., furnish liberal aid in payment of term bills of students. The income of these funds is used:

1. In canceling the term bills, to the amount of $80, of each of twelve students, whose scholarship, deportment, and necessities warrant such a benefaction.

2. In canceling, wholly or in part, the term bills of such other students as are provided for by the terms of the legacies.

The income of the Warren Fund is applied in payment of the term bills of those who are preparing for the Gospel Ministry. Those preparing for the Congregational Ministry can also receive aid, after the Freshman year, from the American Education Society, usually to the amount of $75 annually.

SCHOLARSHIPS

A Scholarship Fund has been secured, which may be made available to those whose circumstances require it. The control of these scholarships is in the hands of individual proprietors, but students of good character and correct deportment can usually obtain assistance from this source.

By a gift of $2,000 from the Emma Willard Association, a scholarship paying $100 annually has been established for deserving young women.

In addition to these, the following Scholarships, provided by donations of $1,000 each, yield to the persons placed upon them by the donor the sum of $60 a year to

be credited upon the term bills: two "Fairbanks Scholarships," by Thaddeus Fairbanks, Esq., of St. Johnsbury, Vt.; the "Levi Parsons Scholarship" and the "Daniel O. Morton Scholarship," by Hon. Levi Parsons Morton, of New York City; the "Penfield Scholarship," by Allen Penfield, Esq., of Burlington, Vt.

It is to be understood that negligence or misconduct will forfeit beneficiary aid.

STATE SCHOLARSHIPS

An annual appropriation from the State of Vermont pays to the amount of $80 annually "the tuition and incidental college charges of thirty students, one of whom shall be designated and appointed by each Senator in the General Assembly, such appointment to be made by such Senator from his respective county, provided any suitable candidate shall apply therefor, otherwise from any county in the State."

Any person prepared to enter college, desiring to take advantage of a State scholarship, should apply to one of the Senators of the county in which he resides, and the Senator may thereupon give him a certificate of appointment, holding good for two years, which will admit him to the college without other conditions than those required of all other students. Should the Senators in the applicant's county already have made their appointments, the student should immediately apply to the President of the College, as there may be a vacancy from some other county of which the applicant may avail himself.

Under this act students of both sexes are eligible for appointment to a State scholarship.

RECORD OF SCHOLARSHIP

A class-book is kept by each instructor, in which the character of each student's recitation is noted. At the

close of a study, any student who desires it may receive from the Secretary of the Faculty a general statement of his rank in that study. If he has attained 90 per cent. or above, his rank is reported as A, or excellent; if between 80 and 90 per cent., as B, or good; if between 70 and 80 per cent., as C, or fair; if between 60 and 70 per cent., as D; if below 60 per cent., the student is not allowed to pass in that study. These reports are also given to parents upon request.

HONORARY APPOINTMENTS

The Faculty, under the direction of the Corporation, give to the first third of each class, on the basis of scholarship, honorary appointments for Junior Exhibition and for Commencement. Those receiving honorary appointments for Commencement are eligible for election to the Phi Beta Kappa Society, provided that they have attained an average rank for the entire course of eighty-five per cent.

SPECIAL HONORS

To promote and encourage special investigation in the various departments of liberal study, the Faculty have established a system of honors. These are divided into two classes, called Honors and Highest Honors. They are awarded in the following departments:

(1) Greek; (2) Latin; (3) English; (4) German; (5) French; (6) Philosophy; (7) History and Political Science; (8) Mathematics; (9) Physics; (10) Natural History; (11) Chemistry.

These honors are awarded on two conditions:

1. The attainment of 80 per cent. for Honors, and 90 per cent. for Highest Honors as an average rank in all the studies of the department in which the honors are sought.

2. The performance of satisfactory additional work, assigned by the Professor, which must be of a superior quality for the attainment of Highest Honors.

These honors will be printed on the Commencement program and in the next annual catalogue, and will be certified to when requested, by a written certificate from the President and the Professor of the department, stating the nature and quality of the extra work done.

PRIZES

By bequest of the Rev. Thomas A. Merrill, D. D., the College received the sum of fifteen hundred dollars, the interest of which is applied annually "for the encouragement and improvement of elocution." Doctor Merrill, a graduate of Dartmouth College in the Class of 1801, was for fifty years a resident of Middlebury and for thirty-seven years pastor of its Congregational Church. For the Merrill Prizes not less than eight nor more than twelve competitors are appointed from the Sophomore class in such manner as the Faculty shall deem expedient. There are four awards, the first $25, the second $20, the third $15, and the fourth $10.

The Parker Prizes are given to the two of the four competitors in the Freshman class who are judged the best speakers; the first prize is $20, the second $10.

EXAMINATIONS

All classes are examined in the studies pursued, either at the close of the term, or of the study. If a student, for any cause whatever, has been absent from ten per cent. or more of the recitations of the study, he will be required to take a preliminary examination before the time of the regular examination.

DEGREE OF MASTER OF ARTS

The degree of Master of Arts is conferred on the following conditions:

1. The candidate must have a baccalaureate degree from this college or from one having an equivalent curriculum.

2. He must have completed a thorough course of graduate study, not professional, in some special branch approved by the Faculty, sufficient in amount to be a fair equivalent for a fifth year of college work; in proof of which he must present a thesis and pass a satisfactory examination.

3. By continuous residence at the college, a candidate fulfilling the above requirements may receive the degree one year after graduation. In case of partial or complete non-residence, the degree will not be conferred in less than two years after graduation.

4. On registration as candidate a fee of $5 will be charged. Resident candidates will receive tuition free, but all other charges will be the same as for undergraduates. Before the degree is conferred an additional fee of $5 for a resident and $10 for a non-resident will be required.

DEGREE OF BACHELOR OF ARTS

Students who have completed in a satisfactory manner either the Classical or the Latin-Scientific Course of study will have conferred upon them the degree of Bachelor of Arts.

CENTENNIAL BOOK

The Centennial Book containing an account of the observances of Centennial week, July, 1900, together with the addresses delivered at the various exercises, has been placed upon sale at the Library at the price of $2.00 per copy.

GENERAL CATALOGUE

The General Catalogue, compiled to the close of the college year 1900, after several years of labor to insure its accuracy, is now complete, and may be procured from the Librarian at $1.50 for the edition in paper, $1.75 in cloth.

NECROLOGY

For the Obituary Record, brief biographical notices of deceased graduates are desired. Any person who can furnish such notices will confer a favor by sending them to President Ezra Brainerd.

THE WOMEN'S COLLEGE

The Trustees at their last annual meeting took the initiatory steps toward the establishment of a separate though affiliated college for the higher education of women. This was done in conformity with an Act passed by the General Assembly of the State of Vermont and approved Dec. 4, 1902. The aim in the establishment of this coordinate institution is to make suitable and adequate provision for the culture and intellectual training of young women, to enable them to enjoy a more distinct social life while in college, and to provide for them an independent system of honors and prizes.

The Women's College will be under the control of the Board of Trustees of Middlebury College and it is designed for the present that the young women shall be offered the same courses as the young men, be taught by the same instructors and enjoy the same privileges of the Library and the Laboratories, and be entitled to the same degrees.

DEGREES CONFERRED IN 1903

DEGREES IN COURSE.

A. M.

Frank William Cady, 1899.
History.

Eveline Loring Dean, 1900.
German.

A. B.

Henry Franklin Harvey,
George Milton Janes,
Duane Leroy Robinson,
George William Skeels,
Ralph Waldo Thompson,
James Maynard Wright,
Lena Mae Bixby,
Anna Sarah Hazen,
Bertha Mabel Kelsey,
Mary Eva Munsey,
Elizabeth May Salisbury.

B. S.

Charles Warren Allen,
Elbert Sidney Brigham,
Nelson Clark Dale,
Mortimer Vincent Drake,
Frank Richmond Ingalsbe,
Claud Frederick Lester,
Learned Ray Noble,
Charles Preston Stubbs,
Albert Edson Taylor,
Joseph Thurlow Weed,
Charles Whitney,
Leila Frances Dustin,
Amelia Elizabeth Hausman,
Lottie Mae Hull,
Maude Winifred Smith,
Elizabeth Augusta Williams.

APPOINTMENTS AND AWARDS

COMMENCEMENT APPOINTMENTS

VALEDICTORY ADDRESS

Duane Leroy Robinson.

SALUTATORY ADDRESS

Elbert Sidney Brigham.

HONORARY APPOINTMENTS

Mary Eva Munsey,
Joseph Thurlow Weed,
Charles Whitney,
Charles Warren Allen,
Mortimer Vincent Drake,
Leila Frances Dustin,
Anna Sarah Hazen.

HIGHEST HONORS IN LATIN

Duane Leroy Robinson

HIGHEST HONORS IN FRENCH

Duane Leroy Robinson.

HIGHEST HONORS IN GERMAN

Duane Leroy Robinson.

HONORS IN FRENCH

Anna Sarah Hazen.

HIGHEST HONORS IN HISTORY

Claud Frederick Lester.

HIGHEST HONORS IN CHEMISTRY

Elbert Sidney Brigham, Charles Whitney,
Mary Eva Munsey.

HONORS IN CHEMISTRY

Mortimer Vincent Drake.

HONORS IN NATURAL HISTORY

Lottie Mae Hull.

JUNIOR EXHIBITION HONORS

Stanley Frank Bond,
Arthur William Eddy,
William Ernest Slocum, Jr.,
Florence Louise Bemis,
Alice Beaumelle Brainerd,
Jessie Maude Prentis,
Josie May Prentis,
Maud Mary Tucker.

These honors are of equal rank.

MERRILL PRIZES

CLASS OF 1905

First Prize.—James Forest Taylor,
Second Prize.—Adolphus Christian Pilger,
Third Prize.—Jesse Carlyle French,
Fourth Prize.—Charles Gardner Barnum.

PARKER PRIZES

CLASS OF 1906

First Prize.—David Charles Caldwell,
Second Prize.—Justin Mark Ricker.

STUDENTS

SENIORS—CLASS OF 1904

Stanley Frank Bond,	*Middlebury*,	Mr. E. E. Bond's.
Edmund Thompson Duffield,	*Rutland*,	Mr. I. M. Taylor's.
Arthur William Eddy,	*Middlebury*,	Atwater House.
William Henry Hammersley,	*Salisbury*,	*7 P. H.
Roy Warner Jocelyn,	*East Swanton*,	18 P. H.
Hugh Garfield Lynde,	*Brattleboro*,	17 P. H.
Harry Foster Markolf,	*West Rutland*,	13 P. H.
Philip Edwin Mellen,	*Middlebury*,	Dr. Mellen's.
James Ira Newton,	*Lestershire, N. Y.*,	Atwater House.
William Ernest Slocum, Jr.,	*Chicago, Ill.*,	7 P. H.
Louis Clare Squire,	*Council Bluffs, Ia.*,	†13 S. H.
Leslie Ernest Sunderland,	*West Cornwall*,	6 P. H.
Garfield Minot Weld,	*New Haven*,	Atwater House.
Edwin Walter Wilcox,	*Crown Point, N. Y.*,	6 P. H.
George Race Wilson,	*East Greenwich, N. Y.*,	17 P. H.

JUNIORS—CLASS OF 1905

Samuel Lee Abbott,	*Bethel*,	15 S. H.
Charles Gardner Barnum,	*Cornwall*,	27 S. H.
Harry Sylvester Fisher,	*Middlebury*,	Mr. Fisher's.
Jesse Carlyle French,	*Potsdam, N. Y.*,	Mr. J. B. Douglas's.
James Buckley Gooding,	*Port Henry, N. Y.*,	Mrs. Smith's.
Harry Hazelton Holt,	*West Rutland*,	16 P. H.
Sanford Henry Lane,	*Middlebury*,	6 P. H.
Adolphus Christian Pilger,	*Vergennes*,	15 P. H.
Percy Llewellyn Roberts,	*Flushing, N. Y.*,	13 P. H.
James Forest Taylor,	*Ticonderoga, N. Y.*,	8 P. H.
Charles Bean Weld,	*New Haven*,	16 P. H.

* Abbreviation for Painter Hall.
† Abbreviation for Starr Hall.

SOPHOMORES—CLASS OF 1906

Harold Riford Bird,	*Middlebury*,	Mr. Bird's.
Warren Edwin Bristol,	*Vergennes*,	11 P. H.
Angus Edward Burt,	*Middlebury*,	Prof. Burt's.
David Charles Caldwell,	*Louisville, Ky.*,	9 S. H.
Leslie Earle Collins,	*Ferrisburg*,	15 P. H.
Clifford De Forrest Cushman,	*New York, N. Y.*,	31 S. H.
George Edwin Kimball,	*Oxford, Mass.*,	14 P. H.
Gordon Dean MacQuivey,	*Middlebury*,	Mr. W. H. Dean's.
Charles Bailey Parker,	*West Rutland*,	9 P. H.
Roy Marion Pickard,	*DeKalb Junction, N. Y.*,	Mrs. Foote's.
Justin Mark Ricker,	*Waterbury*,	10 P. H.
Herbert Godfrey Taylor,	*Schroon Lake, N. Y.*,	8 P. H.
Archibald Darius Wetherell,	*Russell, N. Y.*,	Mrs. Foote's.

FRESHMEN—CLASS OF 1907

Charles Alonzo Acton,	*Mount Vernon, N. Y.*,	18 P. H.
Harry Douglass Allen,	*Port Henry, N. Y.*,	13 S. H.
Walter Lawrence Barnum,	*Cornwall*,	27 S. H.
Thomas Howard Bartley,	*Vergennes*,	11 P. H.
George Brewster Brastow,	*New Haven, Conn.*,	Atwater House.
Ralph Dodge Carson,	*Francestown, N.H.*,	Mrs. Avery's.
Harry Leon Cushman,	*Middlebury*,	Mr. E. P. Cushman's.
Ralph Oscar Dodge,	*Lyndonville*,	10 P. H.
James Montrose Duncan Olmsted,	*Suncook, N. H.*,	Mr. I. M. Taylor's.
Eugene Eddy,	*Middlebury*,	Atwater House.
Frank Garfield Gage,	*Taylor, N. Y.*,	10 S. H.
Earl Montgomery Gove,	*New Haven Mills*,	9 S. H.
Chester Lawrence Harris,	*Montgomery*,	Mr. Langworthy's.
Robert Ingersoll Haseltine,	*Waterbury*,	12 P. H.
Moody Dole Holmes,	*Concord, N. H.*,	12 P. H.
Frank Roseberry Long,	*Bangor, Penn.*,	11 S. H.
Walter Samuel Maggs,	*New London, Conn.*,	11 S. H.
Joseph Patrick McCormack,	*Bethel*,	Mrs. E. M. Eddy's.
Alexander McKinlay,	*Weybridge*,	Mr. McKinlay's.
Bernard Joseph Mulcahy,	*Hardwick*,	Mrs. Wright's.
Carl Lisle Percy,	*Marlboro, Mass.*,	11 S. H.
Philip Wilfred Place,	*Manchester, N. H.*,	Mr. Towle's.
Raymond Clark Ransom,	*Castleton*,	14 P. H.
Gino Arthur Ratti,	*Proctor*,	Mr. Towle's.

William John Shanahan,	*Boston, Mass.*,	15 S. H.
Yoshimitsu Suzuki,	*Otsu Omi, Japan*,	Pres. Brainerd's.
Newton Farnum Thompson,	*Hopkinton, Mass.*,	Atwater House.
John Andrew Viele,	*Fort Edward, N. Y.*,	Mrs. Foote's.
Chester Monroe Walch,	*Hudson Center, N.H.*,	Atwater House.

SUMMARY

Seniors,	15
Juniors,	11
Sophomores,	13
Freshmen,	29
Total,	68

THE WOMEN'S COLLEGE

SENIORS—CLASS OF 1904

Alice Beaumelle Brainerd,	*Middlebury*,	President Brainerd's.
Florence Elizabeth Perley,	*Enosburg*,	Mr. Goyett's.
Jessie Maude Prentis,	*Waitsfield*,	Mr. Goyett's.
Josie May Prentis,	*Waitsfield*,	Mr. Goyett's.
Maud Mary Tucker,	*Middlebury*,	Mr. I. M. Taylor's.

JUNIORS—CLASS OF 1905

Isabella Mather Blake,	*Westfield, Mass.*,	Mr. Howes's.
Bessie Mabel Bump,	*West Salisbury*,	Mr. Goyett's.
Mary Katherine Collins,	*Ferrisburg*,	Mr. Donoway's.
Bertha Chandler Duncan,	*Hancock, N.H.*,	Mr. E. O. Taylor's.
Bessie Bacheller Freeto,	*Marblehead, Mass.*,	Battell Hall.
Florence Elizabeth Giddings,	*Bakersfield*,	Mr. H. Hammond's.
Lena May Goodwin,	*Marblehead, Mass.*,	Battell Hall.
Jeffries Wilhelmina Leete,	*Claremont, N. H.*,	Battell Hall.
Fannie Lord Milliken,	*Malden, Mass.*,	Battell Hall.
Emma Blanche Moore,	*Middlebury*,	Mr. O. P. Moore's.
Alice Jeannette Potter,	*Marblehead, Mass.*,	Battell Hall.
Alice Dutton Richmond,	*Northfield*,	Mr. Jackson's.
Lora Prudence Stickney,	*Middlebury*,	Mrs. Stickney's.
Frances Warner,	*Middlebury*,	Mrs. Warner's.

SOPHOMORES—CLASS OF 1906

Harriet Isabelle Cole,	*Barre, Mass.*,	Battell Hall.
Alice Lottie Duncan,	*Hancock, N. H.*,	Mr. E. O. Taylor's.
Florence Emma Duncan,	*East Jaffrey, N. H.*,	Mr. Cushman's.
Ina Harriet Gove,	*Henniker, N. H.*,	Mr. H. Hammond's.
Irene Elizabeth Henry,	*Waterbury*,	Battell Hall.

Clara Vernice Lovett,	*Middlebury*,	Mr. Damon's.
Annie Elizabeth Metcalf,	*Marblehead, Mass.*,	Mr. H. Hammond's.
Myrtle Arabelle Mosier,	*West Berkshire*,	Mr. H. Hammond's.
May Ella Peabody,	*Salem Depot, N. H.*,	Mr. Merrill's.
Anne Freeman Smith,	*Worcester, Mass.*,	Battell Hall.
Pauline Allis Smith,	*Worcester, Mass.*,	Battell Hall.
Alfaretta Effie Smithson,	*Manchester*,	Mrs. Bixby's.
Inez Mae Stevens,	*Amherst, Mass.*,	Mr. M. R. Burt's.

FRESHMEN—CLASS OF 1907

Kathleen Armstrong Adams,	*Pittsford*,	Mr. Merrill's.
Alice Roseline Bemis,	*Charlemont, Mass.*,	Battell Hall.
Minnie Mason Burditt,	*Pittsford*,	Mr. Merrill's.
Verna Wright Child,	*Middlebury*,	Mr. Merrill's.
Grace Brooks Hammond,	*Middlebury*,	Mr. Donoway's.
Marguerite Harwood,	*Swanton*,	Battell Hall.
Gwendoline Tryphena Hughes,	*Fair Haven*,	Mrs. Phelps's.
Susan Beatrice Miner,	*Middlebury*,	Mr. Miner's.
Agnes Florenda Murdoch,	*Warren, Ohio*,	Battell Hall.
Faith Acland Powers,	*Bennington*,	Mr. H. Hammond's.
Mary Louisa Pratt,	*Paxton, Mass.*,	Battell Hall.
Mabel Ethelyn Stevenson,	*Worcester, Mass.*,	Battell Hall.
Ida Demis Stickney,	*Middlebury*,	Mrs. Stickney's.

SUMMARY

Seniors,	5
Juniors,	14
Sophomores,	13
Freshmen,	13
Total,	45

CALENDAR

1903.

June 24, Wednesday—Commencement.

SUMMER VACATION OF THIRTEEN WEEKS

September 23, Wednesday—Entrance Examinations.
September 24, Thursday, 8.45 A. M.—Fall Term began.
November 25, to November 30, Wednesday, 12.30 P. M., to Monday, 12.30 P. M., —Thanksgiving Recess.
December 14, to December 18, Monday to Friday—Term Examinations.
December 18, Friday, 12.30 P. M.—Fall Term ends.

1904. **WINTER VACATION OF SEVENTEEN DAYS**

January 5, Tuesday, 8.45 A. M.—Winter Term begins.
February 7, Sunday—Day of Prayer for Colleges.
February 22, Monday—College Banquet. Washington's Birthday.
March 21, to March 25, Monday to Friday—Term Examinations.
March 25, Friday evening—Junior Exhibition.
March 25, Friday—Winter Term ends.

SPRING VACATION OF TEN DAYS

April 5, Tuesday, 8.45 A. M.—Spring Term begins.
May 30, Monday—Memorial Day.
June 6, to June 10, Monday to Friday—Senior Examinations.
June 20, to June 24, Monday to Friday—Term Examinations.
June 26, Sunday, 10.45 A. M.—Baccalaureate Sermon.
8.00 P.M.—Anniversary of the Christian Associations.

1904.

June 27, Monday—Class Day.

June 28, Tuesday, 10.00 A.M.—Preliminary Meeting of the Associated Alumni.
11.00 A.M.—Anniversary of the Associated Alumni.
12.30 P . M.—Meeting of the Phi Beta Kappa Society.
8.00 P. M.—Parker and Merrill Prize Speaking.

June 29, Wednesday, 8.30 A. M.—Adjourned Meeting of the Associated Alumni.
10.30 A. M.—Commencement Exercises.
2.00 P. M.—Commencement Dinner.
8.00 P. M.—President's Reception.

SUMMER VACATION OF TWELVE WEEKS

September 22, Thursday, 8.45 A. M.—Fall Term begins.

December 23. Friday, 12.30 P. M.—Fall Term ends.

INDEX

Admission, Terms of, 13–23.
By Certificate, 22.
Classical Course, 13–18.
Latin Scientific Course, 19-22
To Advanced Standing, 22–23.
To Graduate Study, 74.
Aid for Students, 70–72.
Appointments and Awards, 77–78.
Appointments, Honorary, 78.
Athletics, 68.
Battell Hall, 67.
Beneficent Funds, 70.
Biological Laboratory, 64–65.
Botany, Department of 58–59.
Calendar, 84–85.
Catalogue. General, 75.
Centennial Book, 74.
Chemical Laboratory, 65–66.
Chemistry, Department of 60–61.
Classical Course, Freshmen Year, 25–26.
Sophomore Year, 27–29.
Junior Year, 30–35.
Senior Year, 35–41.
Corporation, 10.
Committees of 10.
Degrees Conferred, 76.
Dormitories, 67.
Elective Courses, Rules regarding, 24.
English, Department of 49–51.
Examinations, 73.
Expenses, 69–70.
Extra Studies, 24.
Faculty and Officers, 11–12.
Fees for Admission to Advanced Standing, 23.
For Degree of Master of Arts, 74.
Geology, Department of, 60.
German and French, Department of 51–52.
Greek, Department of, 47–48.
Gymnasium, 68.
Herbarium, 66–67.
Historical Matter, 3–9.
Extracts from the Charter, 5.
Legislative Action, 4–5.
Lists of Presidents, 5–9.
History, Department of, 53–54.
Honors, Special 72–73.
Hours, Number of Required and Elective, 24.
Instruction, Courses of, 24-46.
Departments of, 47–61.
Latin, Department of, 48–49.
Latin Scientific Course, Freshman Year, 41–43.
Sophomore Year, 43–46.
Junior Year, 46.
Senior Year, 46.
Library, 62–63.
Location, 62.
Master of Arts, Degree of, 74.
Mathematics and Astronomy. Department of, 55–56.
Mechanics and Physics, Department of, 56–57.
Moral Science, 52.
Museum, General, 67.
Natural History, 66–67.
Natural History, Department of, 57–60.
Necrology, 75.
Pedagogy, Department of, 53.
Phi Beta Kappa Society, 72.
Philosophy, Department of, 52–53.
Physical Laboratory, 63–64.
Political Science, Department of, 54–55.
Prizes, 73.
Psychology, 52.
Reading Room, 63.
Record of Scholarship, 71–72.
Religious Services, 68.
R. R. Fare, Reduction of, 70.
Scholarships, 70–71.
State, 71.
Students, List of, 80–84.
Tuition, 69.
Warner Science Hall, 63–67.
Women's College, 74-75.
Y. M. C. A., 68.
Y. W. C. A., 68.
Zoology, Department of, 58.